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It's inescapable: Every holiday season, merry music dominates the airwaves. But nestled among upbeat tunes like "Sleigh Ride" and "Joy to the World," there are some melancholy chestnuts, like "The Coventry Carol."

Originating in a 16th-century English mystery play, this mournful lullaby tells of the Massacre of the Innocents, in which Herod I tries to kill the newborn Jesus by ordering all the male infants in Bethlehem executed. "Herod the king in his raging, Charged he hath this day, His men of might in his own sight, All children young to slay." It's a dark song for a light season.

The seeds of Herod's villainous reputation are found in the Gospel of Matthew, the only place in the Bible that mentions the slaughter. Through the songs, illuminated manuscripts, and artworks created during the Middle Ages and Renaissance, they take root and grow stronger with time. Historians know that this king built great cities and strong fortresses, the ruins of which still stand today, yet all his accomplishments seem hidden, overgrown by the gentle Christmas carol sung to new generations about the murderous king of Judaea.

Amy Briggs

Amy Briggs, Executive Editor

What connects a Liverpool soccer stadium with the South African war?

A thunderous roar rolls out from the Kop, the home stand at Liverpool Football Club in England. As it reverberates around the ground it also echoes down the decades to 1900 when equally deafening but very different cries sounded across the Kop's namesake, Spion Kop, a steep hill 6,000 miles away in South Africa. Spion Kop is a name that for more than a century has connected the soccer fans of Liverpool with a bloody battlefield 150 miles northwest of Durban.

The Dutch had settled in southern Africa long before the British seized the Cape Colony and steadily pushed its Dutch-speaking descendants, the Boers, northward. In 1898 friction between British colonial officials and the independent Boer republics boiled over into war. Most Britons were confident that the South African War would be a short and successful campaign as their highly-trained professional army faced a relatively small Boer militia mustered from simple farmers. But the Boers were tough and clever; armed with modern rifles and local knowledge they were a highly mobile force that could strike suddenly and with strength. The Boers immediately invaded the British colonies of Cape and Natal inflicting humiliating defeats on their poorly prepared garrisons. The Boer's besieged key towns with a suffocating grip, and it was while desperately attempting to break the siege of Ladysmith that the British suffered a terrible defeat at Spion Kop.

A sea of red Liverpool Football Club fans in the Kop stand at their Anfield Road stadium

Around 5,000 Boers held the area around this strategic hill, which lay in the path of a 30,000 strong British relief force advancing from Durban. On the misty night of January 24, 1900, some 2,000 British soldiers, including many from Liverpool serving in the Lancashire Fusiliers, scaled the steep sides of Spion Kop and drove off a small Boer defense. But as dawn broke, the reality of the British position became alarmingly clear: They had not taken the entire summit and the Boers occupied strong firing positions on the surrounding hills. What's more, Spion Kop's hard ground made it difficult to dig in, and the British had brought no sandbags for protection. Utterly exposed, the British made easy targets for the Boer rifles and artillery that rained down a relentlessly devastating fire. The Kop quickly became a bloodbath, which the British doggedly reinforced with fresh troops. However, by nightfall the carnage was complete and the British survivors retreated down the rock-strewn slopes to safety. The Boers had retaken Spion Kop for the loss of 300 men: the British lost nearly 2,000.

Just six years after the battle, Liverpool Football Club built a new terrace for spectators by piling rubble into a steep mound. On seeing its precipitous 132 tiers of steps, a local journalist likened the terrace to Spion Kop where so many young men from Liverpool had lost their lives. The name stuck. Today the Liverpool fans, nicknamed Kopites, roar out their rallying cry from the Kop with a passion and a pride that befits the memory of a moment in history that links peoples as far apart as Durban and the football terraces of Liverpool.

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The British graveyard at the Battle of Spion Kop

NATIONAL GEOGRAPHIC

HISTORY

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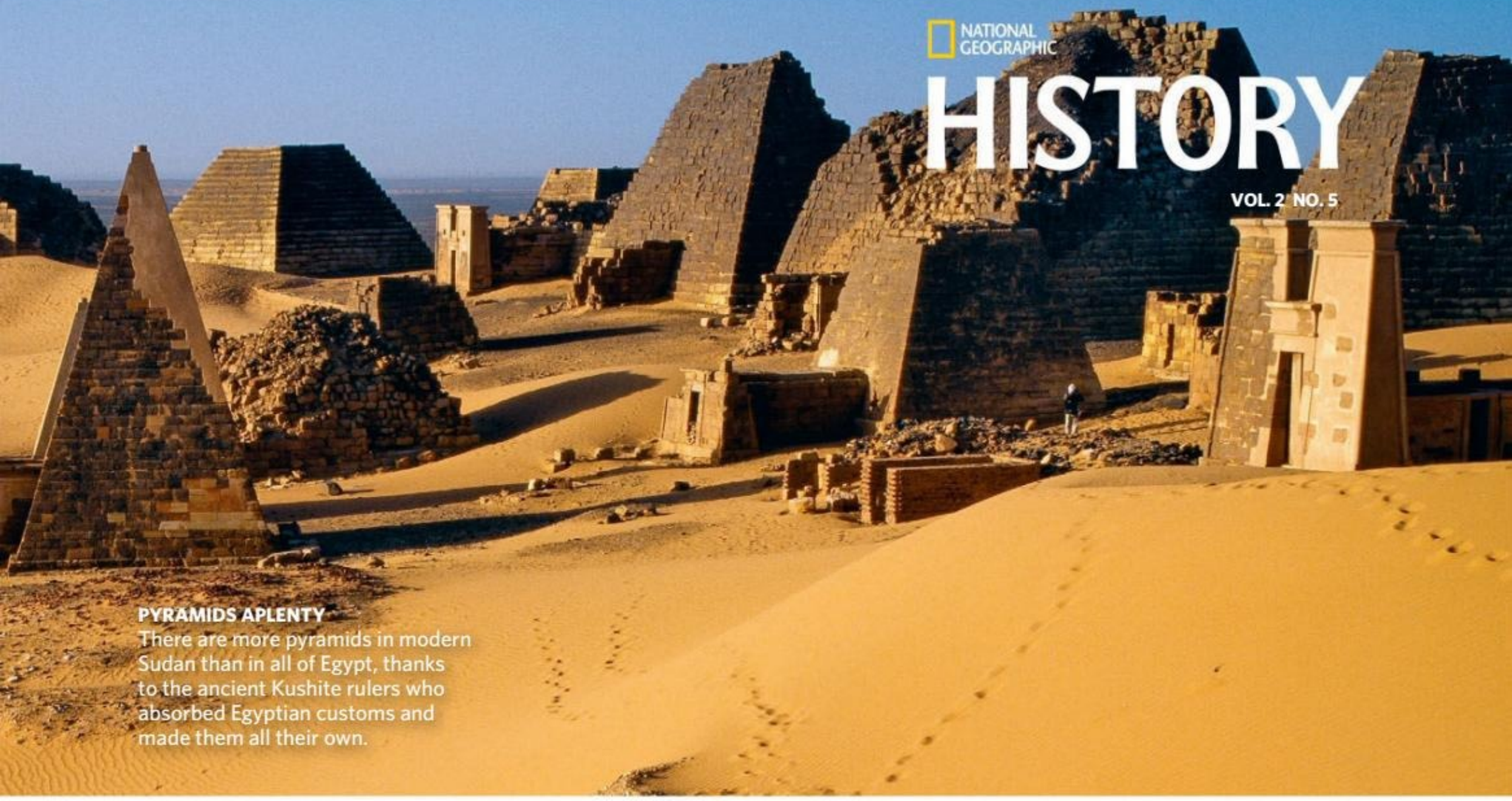

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A sperm whale sank the *Essex* in 1820,
stranding the surviving crew in the Pacific for months, becoming an inspiration for Melville's *Moby-Dick*.

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Afghanistan's golden treasures
were discovered on the eve of invasion, the first—and not the last—time that war has threatened these precious relics.

A PORT IN A STORM: Newfoundland offered the Vikings a perfect place for a rest stop. Its flintlike local stone could be used for making basic tools, its turf for building shelters. The waters teemed with fish to eat and the bogs with ore from which the Vikings smelted iron to forge into nails.

JON BOWEN/NG MAPS

RESTLESS in their exploration both westward and eastward from Scandinavia, the Vikings left artifacts, such as this 10th-century silver coin, along their trade routes spanning eastern Europe and Russia.

DEA/ALBUM

SPACE ARCHAEOLOGY

Vikings in North America: A Saga's New Chapter

Satellite images have led archaeologists to a new excavation site in Canada, yielding more clues to Norse settlements in North America.

Icelandic sagas tell how the 10th-century Viking sailor Leif Eriksson stumbled on a new land far to the west, which he called Vinland the Good. The 1960 discovery of a Viking settlement at L'Anse aux Meadows in Newfoundland, Canada, caused a sensation, proving the sagas were not just fiction. Vikings had indeed reached the coast of America five centuries before Columbus.

Now those medieval sagas look ready for another endorsement, this time from space: National Geographic fellow Sarah Parcak, an expert in detecting buried structures from satellite images, has identified another likely Viking site on the southernmost tip of Newfoundland, a find that could rewrite the story of the colonization of North America.

ROLF HICKER/CORBIS/GETTY IMAGES

ROBERT CLARK

HEARTH AWAY FROM HOME: Sarah Parcak's team dig at Point Rosee, Newfoundland, unearthing a hearth where they believe Vikings roasted iron ore (left). Quantities of slag (above) testify to the visitors' ironworking activities, also detected at L'Anse aux Meadows on the north of the island (top), the only confirmed Viking site in America to date.

ROBERT CLARK

GO WEST, YOUNG VIKING!

A SAGA, in a strict literary sense, is a story depicting the past deeds of the heroes of Norway and Iceland. Of particular fascination to historians are two written in the 13th century: the *Saga of the Greenlanders* and the *Saga of Erik the Red*. The titular hero of the second, named for his red beard or hair, founded the first enduring Viking colony on Greenland in the second half of the 10th century. The sagas recount how his son, Leif Eriksson, on hearing tales of lands to the west of Greenland, made landfall at places later identified by historians as Baffin Island and Labrador. One region particularly drew the interest of Leif's crew, a place growing grapes—which some scholars interpret as berries. Leif named it Vinland, an area now identified as Newfoundland and the mainland coast along the Gulf of St. Lawrence.

ERIK THE RED
DANISH ILLUSTRATION FROM THE 17TH CENTURY

BRIDGEMAN/ACI

In summer 2015 Parcak and her team broke ground at Point Rosee near Channel-Port aux Basques, a windswept stretch of grassy coast overlooking the Cabot Strait. The dig unearthed remains of turf walls and an ironworking fireplace, yielding valuable information on the Vikings' seafaring and metalworking techniques when on the move.

Parcak, a professor of anthropology at the University of Alabama, has successfully used satellite images to detect evidence of looters at archaeological sites in Egypt. This spring, her images also revealed the spectral outline of a large, buried structure at the site of Petra in Jordan.

On turning her attention to Newfoundland, Parcak used remote-sensing tools to comb the area for clues of buried objects. Soil that contains hidden structures retains moisture in a different way from undisturbed ground, and the resulting patterning on the vegetation alerted her to the possibility of buried objects at the Point Rosee site.

Nailing It

Parcak's team is confident that the remains were most likely left by Norsemen, but she is not yet 100 percent convinced. The island of Newfoundland bears traces of other cultures, such as those of Native Americans, or the Basque whalers from Spain who sheltered on the island from the early 1500s.

A point in the Vikings' favor is that the two main features, the turf structure and the hearth, are common to Viking settlements. Another supporting piece of evidence is the nearly 28 pounds of slag found nearby which suggest the hearth was used for the roasting of iron ore, abundant in the bogs of Point Rosee. Once smelted, the iron produced would later be used for a key component of the Vikings' maritime supremacy: the nails that held together their swiftly moving boats.

The excavations undertaken at Point Rosee are just the opening phase of an ongoing project that Parcak hopes will shed more light on the early history of European exploration of North America. If the 1960 discovery at L'Anse aux Meadows proves that the Vikings reached America, the find at Point Rosee will help historians build a picture as to when, and for how long, they explored this coast, and how far their wanderings took them in the New World. ■

Empress Dowager Cixi: A Firm Grip on Power

Ruthless and brilliant, the empress dowager Cixi challenged foes—both foreign and domestic, including her adopted son, Emperor Guangxu—to bring China into the modern age.

From Concubine to Queen

1852

Cixi leaves her family to live in the Forbidden City as a concubine of Emperor Xianfeng. She gives birth to his heir Tongzhi in 1856.

1861

Cixi and Zhen, the emperor's widows, seize power in a coup after Xianfeng dies. Tongzhi inherits the throne.

1875

After Tongzhi dies, Cixi appoints her adopted three-year-old son, Guangxu, as emperor and serves as regent.

1898

Cixi uncovers a plot to kill her orchestrated by courtiers and Guangxu, whom she places under house arrest.

1908

Cixi poisons Guangxu, fearing he is too weak-willed to rule. Cixi dies a day later, having named Puyi as heir.

Born in 1835, the girl who would gain fame as the Empress Dowager Cixi showed no obvious signs of future greatness. This girl, both through good fortune and unyielding determination, would rise to power in China, becoming the Dowager Empress, ruling as the queen regent from 1861 until her death in 1908, one of the most turbulent periods in China's history. With her iron will and shrewd mind, she helped transform China from a medieval society to a modern power on the global stage.

Few concrete records remain of Cixi's life before age 16. She was Manchu, the ethnic minority in power since the 1600s, and her heritage kept her feet from being bound, a tradition of China's ethnic majority, the Han. Her family were most likely government employees. She probably could read, write, draw, and sew. Some historians say her father sought her advice and valued her opinion as highly as he would a son's.

A respected position in her birth family would not win Cixi respect in the outside world. Because she was born female, her opinions meant little to men. Like other teenage girls at that time, 16-year-old Cixi had to be presented by her family to be considered as a concubine to the newly crowned Chinese emperor, Xianfeng. Selected as a low-ranking consort, Cixi left her family to live in the Forbidden City with the other women in the emperor's harem.

Xianfeng's chief consort was Empress Zhen. The highest ranking of his wives, she became friends with Cixi. The relationship served them both well, especially after Cixi gave birth to the emperor's only surviving son in 1856, an event that raised her status and provided her with the keys to power.

The Widows' Coup

Early in his reign, Xianfeng faced colossal problems on both domestic and foreign fronts. He came to power at age 18 in 1850, the same year that widespread famine caused the Taiping Rebellion, a massive peasant uprising in the southern provinces. This insurrection would continue unabated and leave a third of China under rebel control. Six years later, France and Britain invaded China, beginning the second Opium War and putting an enormous strain on the country's resources. This conflict also stirred up heated debates between pro- and anti-Western factions within China.

A BRONZE COIN FROM THE REIGN OF EMPEROR XIANFENG
ALBUM

Cixi presided over meetings from behind a screen, as her ministers were not supposed to see her.

ONE FIERCE-LOOKING QUEEN

WHEN NOT WEARING her six-inch platform shoes favored by Manchurian women, Cixi stood about five feet tall. But her diminutive size did not diminish her intimidating appearance. Although Cixi was not described as a great beauty, she was blessed with a smooth complexion, a charming smile, and bright, expressive eyes that could be warm and engaging one moment, and then ice-cold with anger the next. Her fierce stare—recalled Gen. Yuan Shikai, the future first president of the Republic of China—was legendary. He said that Cixi's made him so nervous that "the sweat just poured out."

THE EMPRESS CIXI AT AROUND AGE 70 IN A 1905 PORTRAIT BY ARTIST HUBERT VOS

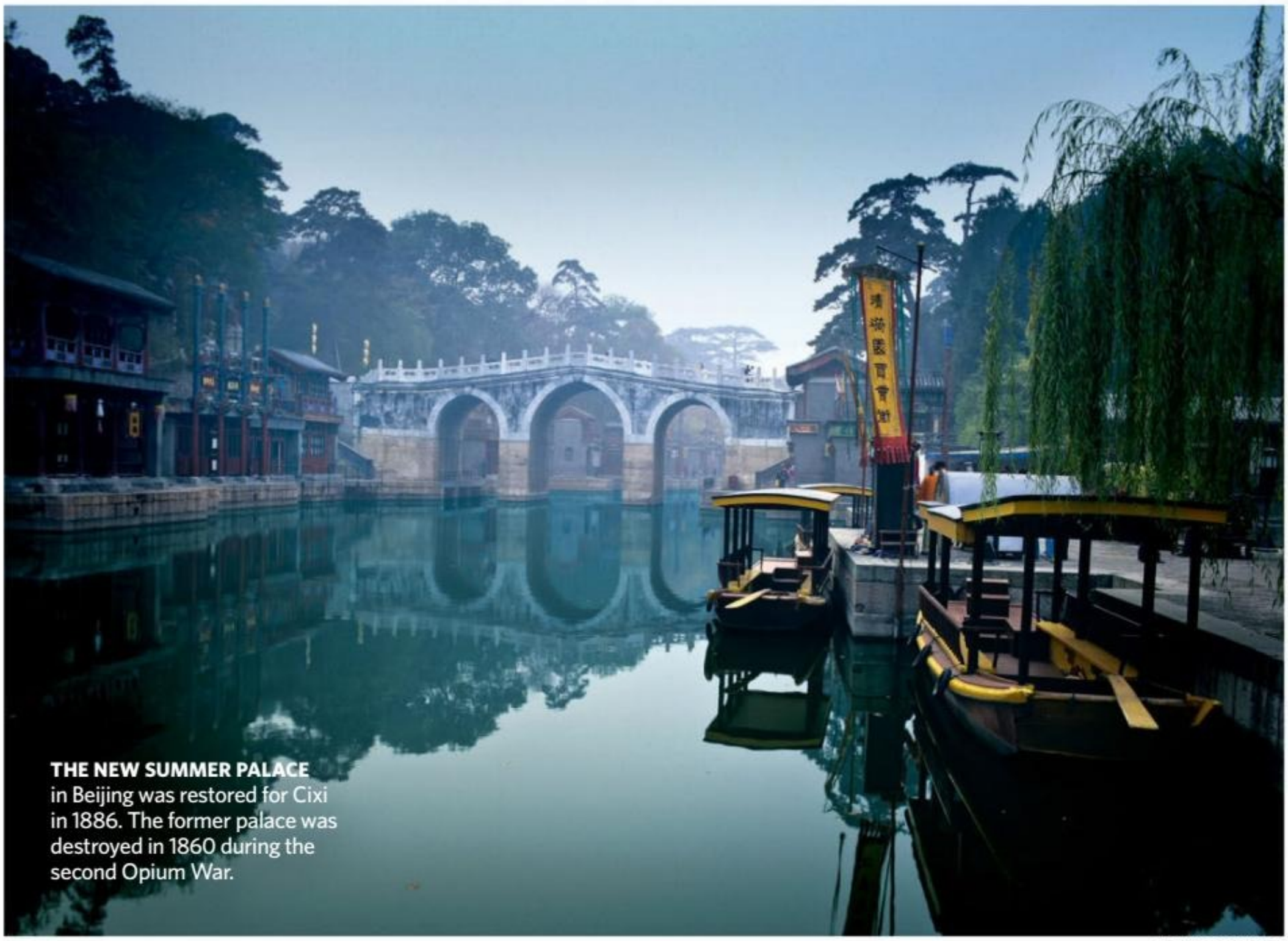
AKG/ALBUM

In the face of all this turmoil, Emperor Xianfeng died in 1861, and Cixi's five-year-old son became the imperial heir, dubbed Emperor Tongzhi. Before his death, Xianfeng had selected eight men—princes and ministers from his inner circle—to form a Board of Regents and rule until his son came of age.

Cixi saw the emperor's death as a necessary moment to strike a blow to improve China. She thought the regents had poorly advised the emperor. Cixi, then known then as Concubine Yi, worked together with Zhen on a plan to launch a coup. She and Zhen were supported by two of Xianfeng's brothers, Prince Gong—an advocate of appeasing the West—and Prince Chun, who had married Yi's younger sister. The two women successfully overthrew the regents, imprisoning five of them, executing one, and ordering two to commit suicide. The dowager empresses would rule until the child emperor came of age. They took new names: Zhen became Ci'an ("kindly and serene"); and Yi took the name Cixi ("kindly and joyous") to mark the events.

Modernity and Tradition

Over the next five decades, China's fate was determined by Cixi. She managed to impose her authority in spite of the inferior position the strict court protocol gave to women: The widowed empress presided over meetings from behind a screen, as the ministers were not supposed to see her. She never entered the foremost section of the Forbidden City, which was reserved for the emperor. Instead she relied on loyal men to carry out her decisions, such as Prince Gong, who headed the Great Imperial Council. Since



THE NEW SUMMER PALACE in Beijing was restored for Cixi in 1886. The former palace was destroyed in 1860 during the second Opium War.

JTB PHOTO/AGE FOTOSTOCK

she governed behind the scenes, her achievements were attributed to others, while her opponents cast her as a crafty, bloodthirsty conspirator.

Manchu governors (who dominated the Han ethnic majority) were divided between those who opposed the Westerners and those who, like Cixi, wanted to modernize China to boost its economy in order to avoid total submission to the West, as well as Japan, which had become a serious threat to China.

Cixi advocated westernization—but not completely. For example, she took nearly 20 years to allow the complete construction of a railroad because she did not want to disturb ancestral tombs that lay near the proposed line. She did not want to promote textile factories because they took work away from Chinese women. She also knew there was much opposition to reform among the people, from commoners to civil servants to nobles, who detested so-called barbarian Western customs.

In spite of the criticism, Cixi managed to bring peace to the country, put public finances on a sound footing, built a navy, and encouraged the country to open up to the world. With the help of the Westerners who commanded the army, the southern Taiping rebels were finally crushed.

Officially, Cixi had to stand down when Tongzhi came of age in 1873. Two years into his rule, a bout with smallpox killed the young emperor, who left no heir. Some believed that

THE QUEEN'S MAN

IN IMPERIAL CHINA eunuchs were a ubiquitous presence in the Forbidden City and had been serving as guardians of the emperor's inner court for more than 2,000 years. In Cixi's time, one of the most influential eunuchs at court was Li Lianying, who was in charge of a staff of thousands: cooks, gardeners, servants, cleaners, painters, and other eunuchs.

EUNUCH'S ROBE FROM THE COURT OF CIXI

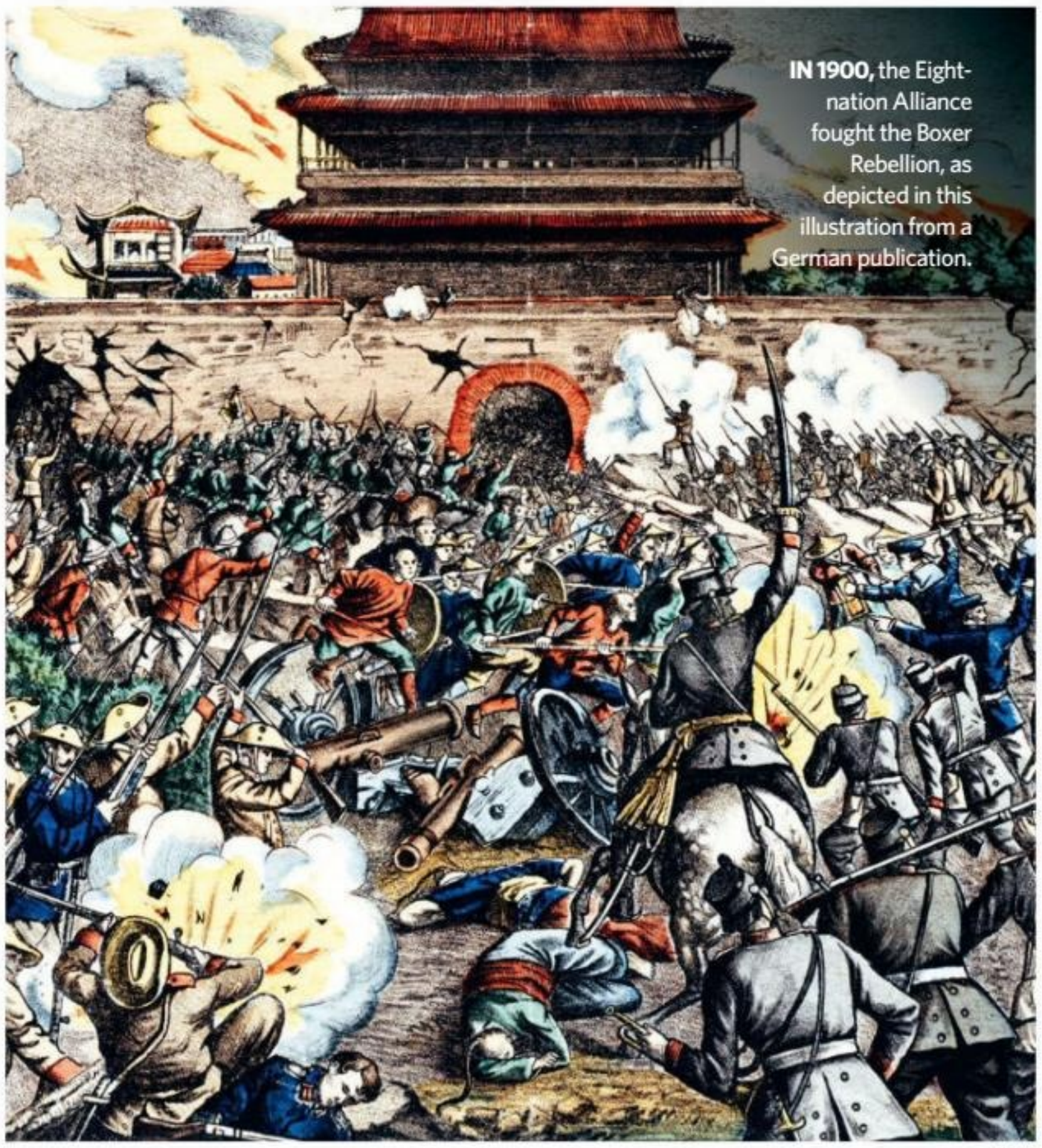
WERNER FORMAN/GTRES

WORKING ON THE RAILROAD

ALTHOUGH CIXI FAVORED modernization, local opinion had to be respected. China's first railroad, built in 1876 by the British, was dismantled after serious local protests. It took 13 years for Cixi to change enough minds to launch China's first rail line, the Beijing-Wuhan railway. She felt it would be a "key component of our blueprint for Making China Strong."

CHINA'S FIRST RAILROAD, BUILT IN 1876 BY THE BRITISH, RAN THE 12 MILES BETWEEN SHANGHAI AND WUSONG.

SCALA, FLORENCE



IN 1900, the Eight-nation Alliance fought the Boxer Rebellion, as depicted in this illustration from a German publication.

ALBUM

power-hungry Cixi had poisoned her son to cling to power, but no proof for murder exists. Dark rumors circulated around Cixi, and not for the last time.

The Taming of the Emperor

Cixi again seized the reins of government, adopting the son of her sister and Prince Chun and naming him emperor. Ci'an and Cixi would continue to act as regents to the new emperor, Guangxu—who was barely three years old—until Ci'an's sudden death in 1881. After that, Cixi was the sole regent. She embarked on a second wave of modernization, introducing electricity and coal mining. She started a war with France to oppose its territorial ambitions on the border between China and Vietnam, which ended in a stalemate.

Cixi officially ceded power to Guangxu in 1889 when he came of age. Educated in the strictest of Confucian orthodoxy, Guangxu was suspicious of everything Western. His failure to comprehend the modern world later led him to abandon China's naval program, resulting in a crushing defeat to Japan in 1895, a crisis that made Cixi the de facto ruler again.

The tension between Cixi and her adopted son, and between reformers and traditionalists, was heightened by the influence of an academic and adviser, Kang Youwei. His reform proposals won over Guangxu, but Cixi mistrusted him. Kang involved the emperor in a plot to assassinate her, but their plans were discovered in 1898. Kang fled to Japan, and Guangxu was placed under house arrest, leaving him as a puppet but effectively removing him from power.

Cixi continued to rule China until her death. She survived a number of crises, including the Boxer Rebellion, which ended in a defeat for China at the hands of a foreign coalition in 1901. In the face of defeat, the ruling Chinese elite rallied around the dowager empress, who had published the unprecedented Decree of Self-reproach, in which she blamed herself for the devastation caused by the war. In January 1902 Cixi announced a series of reforms that shook up all aspects of Chinese life. Marriages between Han and Manchu partners were legalized. Foot-binding, a custom long practiced on Han girls, was banned. Freedom of the press was expanded. In 1906 Cixi announced that China would be transformed into a constitutional monarchy with elections.

Cixi died in November 1908, only one day after Guangxu, whom many believe she had poisoned to ensure the weak sovereign would stay out of power. Cixi named her two-year-old great-nephew the heir and designated a new dowager empress to watch over the nation she brought into the modern age.

—Josep Maria Casals

Coca: A Blessing and a Curse

South Americans have cultivated coca plants for about 8,000 years. Valuing the leaves as highly as gold, the Inca treasured coca not only for its myriad medicinal properties, but also for the integral part it played in their sacred rites and rituals.

A legend from the Andes tells the tale of Kuka, a woman of such extraordinary beauty that none in the entire empire could resist her. Aware of her power, Kuka used her charms to take advantage of men until word of her misdeeds reached the Great Inca's ears. He ordered that she be sacrificed, cut in half, and buried. From her grave a miraculous plant sprouted. It gave strength and vigor and alleviated pain and suffering. The people called it coca, in honor of that beautiful and irresistible woman.

This myth acknowledges the great importance that coca leaves had, and continue to have, in the culture and history of the people of the Andes. Despite gaining notoriety in modern times for being the source material for the highly addictive drug cocaine, coca continues to be a large part of Andean culture today. Unprocessed leaves from the plant can be enjoyed by chewing them or by brewing them into a tea. Locals still use coca today to combat altitude sickness, and to relieve pain and hunger. Some still believe that its leaves can be read to tell the future.

Scientific studies of coca's medicinal properties have found that its leaves contain a powerful alkaloid that acts as a stimulant. Its effects include raised heart rate, increased energy, and even suppression of hunger and thirst.

Other benefits include muscle relaxation, which can help with menstrual cramps. This effect also helps to treat altitude sickness by opening up the respiratory tract and relieving the feeling of shortness of breath and tightness in the chest. Coca is highly useful for its antibacterial and analgesic properties, in addition to aiding in digestion and in preventing constipation. Coca itself is rich in iron, and vitamins B and C.

Consumption of coca dates back to the very earliest of ancient South American societies. There is evidence it was consumed in cultures located in modern-day Ecuador from as early as the ninth millennium B.C. It was during the Inca Empire, however, a little before the arrival of the Spanish, that coca attained particular religious and socio-economic significance.

Coca Culture

The first Incas date to A.D. 1200. The civilization rose to prominence in 1438 when the emperor Pachacutec, whose

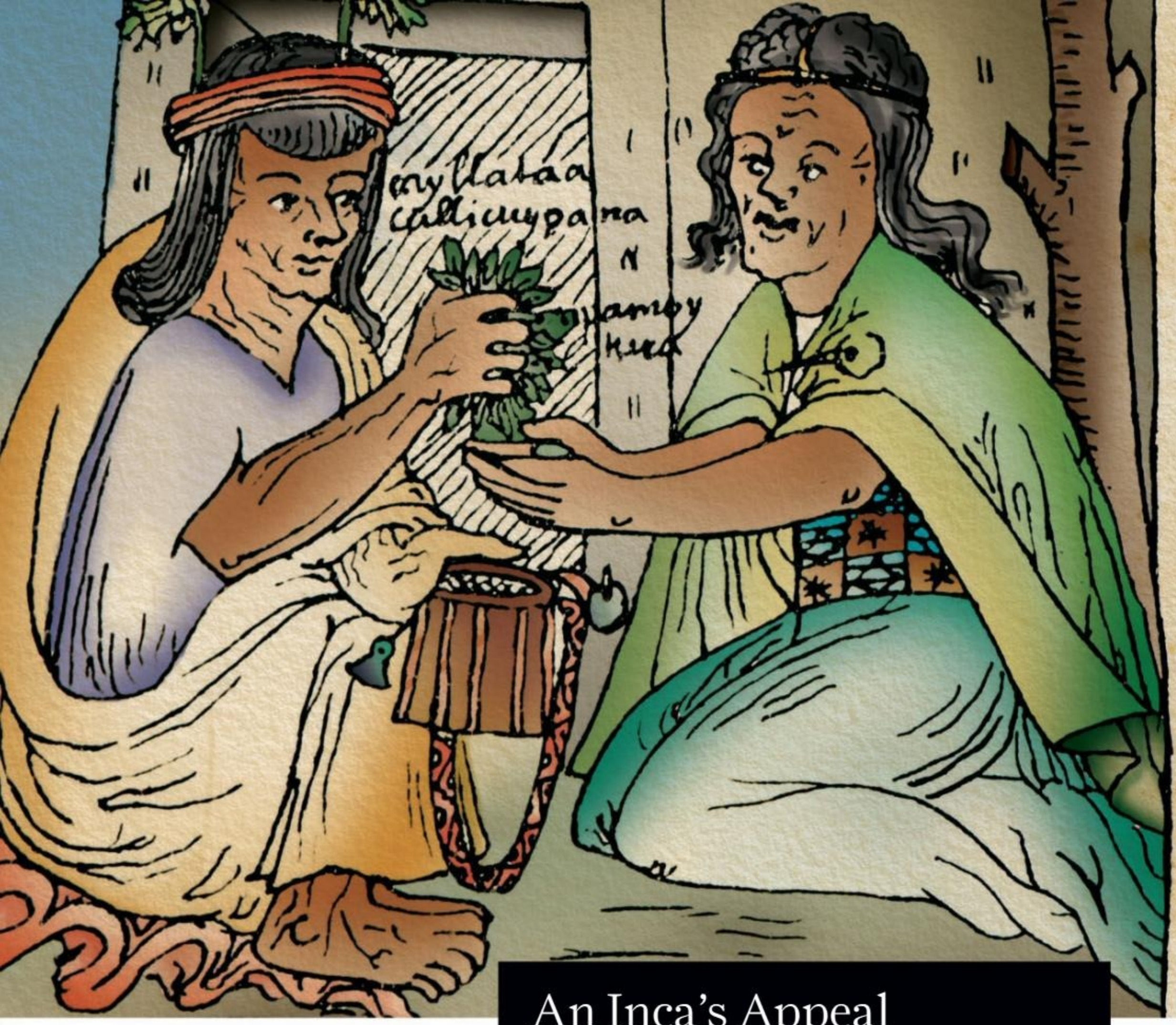
SHARING COCA in an illustration in the chronicle written by Felipe Guamán Poma de Ayala, 1615

BRIDGEMAN/ACI

FLORILEGIUS/ALBUM

THE LEAVES' SECRET

GROWING MORE THAN six feet tall, coca bushes produce white flowers, bright red berries, and thin green leaves. Scientists were fascinated by the active substance in the leaves. In 1855 German chemist Friedrich Gaedcke first isolated it; four years later, Albert Niemann did it again, naming the substance "cocaine."



name means "he who remakes the earth," began conquering lands surrounding Cusco, the imperial capital, located in modern-day Peru. The Inca language, religion, and trade network dominated the Andes.

Vast amounts of coca, regarded as sacred by the Inca, were used in religious ceremonies. Cristóbal de Molina, a Spanish priest who lived in Cusco around 1565 and observed Inca traditions, described how the Inca burned leaves and blew coca fumes toward the sun—their main deity—and other gods, as part of a ritual to heal the sick. The plant was also revered for its divinatory powers, and some priests were

An Inca's Appeal to a Spanish King

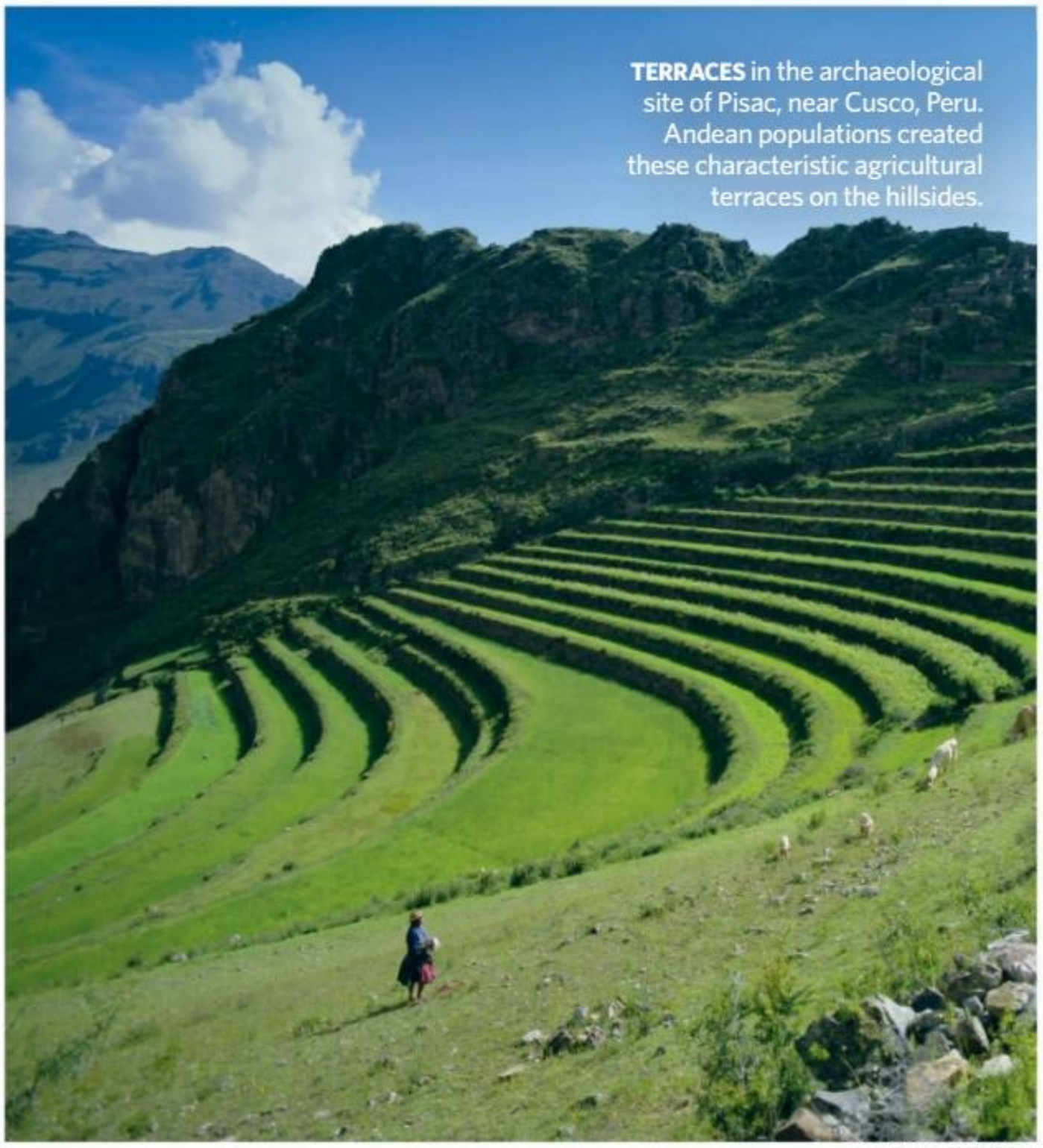
A FARMER TAKES COCA LEAVES out of his *chuspa* (coca pouch) and says to his companion, "Chew this coca, sister" in the above illustration, which appears in *El Primer Nueva Corónica y Buen Gobierno (The First New Chronicle and Good Government)*.

The author and illustrator, Felipe Guamán Poma de Ayala, was documenting how coca use had become more widespread in the Inca lower classes since the Spanish conquest. Born into a noble Inca family circa 1535, Guamán Poma was educated in the European tradition; he used his talents for writing and illustration in the *Nueva Corónica*. Finished between 1612 and 1615—1,189 pages long, and with 398 drawings—the book was written to show King Philip III of Spain the effect of colonial Spanish rule. No one knows if the king saw it, but the work remains a valuable source on Inca culture.

ENSLAVED LABOR

THE COCA HARVEST was collected in the fields by the *mitimaes,* populations forcefully transferred from other regions of the Inca Empire to pay tribute to the overlords through their labor. They did not always acclimatize well to the new environment and would often get seriously ill. Juan de Matienzo wrote in 1567 that six out of 10 of them died of "what they call the sickness of the Andes."

THE PRINT COLLECTOR/AGE FOTOSTOCK

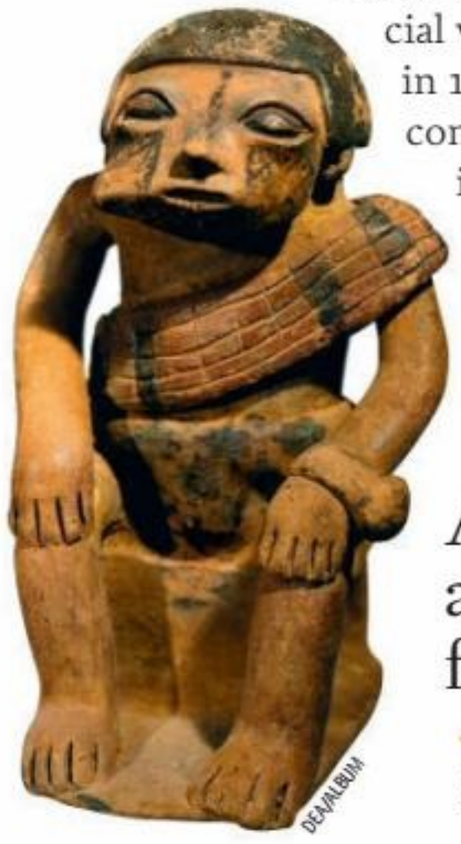


TERRACES in the archaeological site of Pisac, near Cusco, Peru. Andean populations created these characteristic agricultural terraces on the hillsides.

DEREK FURLONG/AGE FOTOSTOCK

specialists at reading its leaves. Coca was also buried with the dead, included among their grave goods to accompany them into the afterlife.

Some religious rituals involved human sacrifice, and coca played a role as well. Three mummies of sacrificial victims discovered in 1999 revealed high consumption of coca in the months preceding their deaths. Consuming the leaves was believed to induce holy trances and altered states while also disorienting the victims, making them easier to subdue.



DEA/ALBUM

A MAN CHEWING COCA IN A PRE-COLUMBIAN FIGURE

As the powerful controlled production and distribution, access to coca was, at first, limited to the Inca elites.

Cultivating the Crop

The Inca system for growing and harvesting coca leaves involved many steps. The plants were grown in clear-cut fields in warm, wet regions. When ready for harvesting, the leaves would tear when folded. They were picked and then laid out in thin layers to dry in the sun. Imperfectly colored leaves were rejected. Coca leaves are very fragile, and although meticulous efforts were made to ensure they kept their flat shape and uniform color, a large part of the harvest was lost during drying. The entire process required particular care to maintain as many leaves as possible.

Because of their high value, coca leaves could serve both as a commodity and a currency. Public officials and regional or local lords were paid for their services to the empire in precious metals, fine textiles, and baskets of coca leaves. The *Sapa* Inca—the "only Inca," or the king—rewarded loyalty with baskets of coca leaves. They were also given out to soldiers at feasts to celebrate victories. Of all prestigious Inca goods, coca was the most highly valued. Garcilaso de la Vega, who was of Spanish-Inca parentage, wrote: "[The Inca] place it before gold and silver and precious stones."

Because of its high value, coca was largely consumed by the imperial Inca

Arts and Crafts

COCA'S CENTRALITY TO PRE-COLUMBIAN ANDEAN SOCIETIES is revealed in their material culture: statues and figurines; votive offerings that depict everyday coca-chewing; and intricately decorated pouches to carry leaves.

◂ ***Statue of an Inca porter,*** holding a coca leaf container in his right hand

▲ ***Inca figurines*** used as offerings. The bumps in their cheeks show they are chewing leaves.

▲ ***Chuspa,*** a pouch woven from llama wool in which coca leaves were kept

▲ ***The Quimbaya*** would use *poporos* vessels to store lime as a reagent for coca.

FROM LEFT TO RIGHT: AKG/ALBUM; M. CARRIER/ART ARCHIVE; ARCHAEOLOGICAL MUSEUM LIMA/ART ARCHIVE; M. CARRIER/ART ARCHIVE

elites. During the last days of the Inca Empire, a relaxation of restrictions on coca consumption began. Some researchers argue that this change could be due to the fact that—unlike during the empire's earlier stages—the state could no longer guarantee the food supply for the entire population. Coca started to be used to dull hunger in lean times. Nevertheless, its association with food for the elite prevailed until the Inca Empire was conquered by the Spanish in 1532.

In the early days of the conquest, Spanish chroniclers from the 16th and 17th centuries noted how the wealthy had a monopoly on coca. Juan de Matienzo wrote that leaves "were a delicacy for lords and chiefs and not for the common people."

After the conquest coca consumption spread among the indigenous population, as recorded by many Spanish colonists who exploited the Inca as slave labor. The Spanish authorities discovered how coca increased productivity, and encouraged the enslaved people to consume it. In time the crop became a lucrative business for Spanish landowners, who raised production to meet increased demand. The missionary Father Bernabé Cobo wrote: "It is the most profitable product in the Indies [*sic*] and has made many Spaniards rich."

An Acquired Taste

The Spaniards often mocked indigenous people for their belief in the power of coca. But skepticism started to give way to interest in the strange leaf. In 1653 Father Cobo wrote that the Indians "say that [coca] gives them strength, and they feel neither thirst, hunger nor tiredness. I think it is mostly superstition, but one cannot deny that it gives them strength and breath, as they work twice as hard with it."

Garcilaso de la Vega recorded the following conversation between two Spaniards, a gentleman and a farmhand near Cusco. The first asked, "Why do you eat coca, like the Indians do, when Spaniards find it so disgusting and detestable?" The other, who was carrying his two-year-old daughter on his back, replied. "In truth, sir, I detest it no less than anyone, but need forced me to imitate the Indians and chew it. Without it I would not be able to bear the burden. With it I have strength and vigor to be able to undertake my labors."

Today coca leaves are harvested as an essential ingredient of the illegal, but highly lucrative, production of cocaine. Despite the plant's role in so much violence and political instability across the Americas, its traditional use is still invoked by Andean societies as a symbol of their enduring culture.

—Ariadna Baulenas i Pubill

The Whale's Revenge: The Odyssey of the *Essex*

In 1820 a massive sperm whale rammed a Nantucket whaling ship, sending it to the bottom of the Pacific Ocean. Stranded 1,500 miles from land, the surviving crew's horrific quest for survival came to symbolize the primordial struggle between man and nature and went on to inspire one of America's greatest literary works: Herman Melville's *Moby-Dick*.

"Death to the living, Long life to the killers, Success to sailors' wives, And greasy luck to whalers." So went a popular toast when Nantucket, Massachusetts, was still the center of the whaling industry in the early 19th century.

But times were changing: Whale populations in the North Atlantic had declined, forcing whaling ships to head to more distant waters, first plundering the rich pickings off the South American coast, then striking out into the Pacific. The economic stakes were high: Each expedition could yield hundreds of barrels of precious whale oil. There was also valuable ambergris, a substance from the sperm whale used in making perfumes and medicines. Expeditions could last for years while being highly profitable.

But the story of the *Essex* would be different. The 88-foot, 238-ton whaleship left Nantucket on August 12, 1819, scheduled for two and a half years at sea. At the helm was Captain George Pollard, Jr., age 28, with first mate Owen Chase and second mate Mathew Joy. The 18-man crew included teenagers like Owen Coffin, the captain's cousin, and Thomas Nickerson, a cabin boy, age 14. Seven of the sailors were African American.

Later there would be talk of how strange omens appeared in Nantucket

THE WHALE Watercolor by Jean François Garneray, 1836. Peabody Essex Museum, Salem, Massachusetts

BRIDGEMAN/ACI

DEA/ALBUM

GOING TWO FOR TWO

OF THE TWO WHALING SHIPS commanded by Captain Pollard—the *Essex,* depicted above, and the *Two Brothers*—two of them sank. The *Two Brothers* sunk in 1823 after striking a reef near the Hawaiian Islands. The crew survived but Pollard's maritime career did not. In 2011 archaeologists announced they had found the *Two Brothers*'s anchor and artifacts, including a harpoon tip, near the French Frigate Shoals in Papahanaumokuakea Marine National Monument.

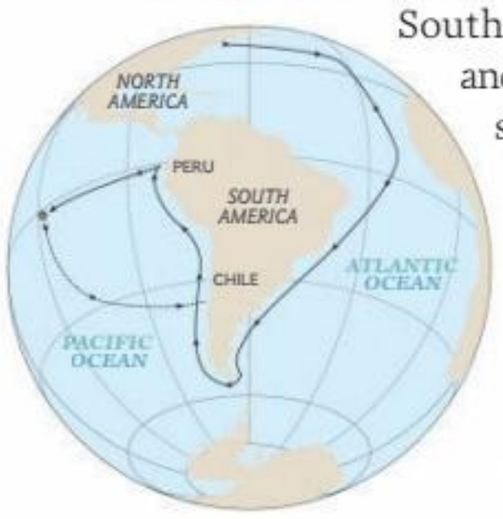
the summer the *Essex* set sail. In July a comet had crossed the skies, and a plague of locusts had destroyed the crops. The local newspaper, the *New Bedford Mercury,* recorded sightings of "an extraordinary sea animal" resembling a serpent.

Inauspicious Beginnings

Only three days into their voyage, a violent squall battered the *Essex,* terrifying the inexperienced crew. The ship began to creak and listed dangerously. Captain Pollard managed to reach the island of Cape Verde, off the coast of West Africa, at the end of September, where they repaired the ship. They set sail again for the South American coast and caught their first sperm whale in the waters near Brazil. This region was largely fished out, so they headed to the Pacific in search of better luck.

In January 1820 they rounded Cape Horn. For many months, toiling up the long Chilean coastline, they sighted few whales. When they reached the South Pacific close to Peru, their fortunes changed: They were catching a sperm whale every five days, a bonanza that yielded a total of 450 barrels of oil.

However, rough sea conditions forced them to head west again. On a final stop in the Galápagos, they were able to stock up on provisions, including some giant turtles for food. From there the Pacific Ocean stretched out, apparently infinite, in every direction. They were more than 1,500 miles west of Peru, about as far from land as it is possible to be on Earth.



The route of the *Essex* from Nantucket to the site of its wreck in the mid-Pacific, and the long southerly route along which its survivors drifted

Head On Collision

On November 20, the crew sighted a huge male sperm whale leading a pod. Three small whaling boats were launched under the command of the captain and the ship's two mates. They had soon managed to corral several of the whales when a calf smashed into Chase's boat forcing him to return to the main ship. It was then that the young cabin boy Nickerson spotted a looming shape underneath the bow of the *Essex.* It was a mighty sperm whale some 85 feet long, weighing as much as 80 tons.

First mate Owen Chase wrote later how he saw the whale "appear with tenfold fury and vengeance in his aspect. The surf flew in all directions about him with the continual violent thrashing of his tail. His head about half out of the water, and in that way he came upon us, and again struck the ship . . . I could distinctly see him smite his jaws together as if distracted with rage and fury."

SPERM WHALES are the largest of the toothed whales. Albinism is a rare trait in the whales, which are typically gray in color.

HIROYA MINAKUCHI/GETTY IMAGES

The huge creature smashed into the *Essex* repeatedly, on each occasion causing it to list even more. The men just had time to save some of the provisions and regroup in three small whaling boats before their ship succumbed to the waves. "My God, Mr. Chase, what is the matter?" Captain Pollard asked in utter shock. "We have been stove by a whale," came the bitter reply.

Adrift in the small boats, her crew were as far as they could possibly be from any known land. They inventoried the provisions they had salvaged: around 300 pounds of biscuits, several casks of water, and some of the Galápagos turtles. Pollard, Chase, and Joy each took charge of one of the small whale boats. Pollard proposed heading for one of the small Pacific islands, such as Tahiti, which he calculated could be reached within 30 days. But Chase, believing those islands to be inhabited by cannibals, stubbornly opposed this plan and, along with the inexperienced Joy, persuaded Captain Pollard that they must attempt the longer journey back to the South American coast.

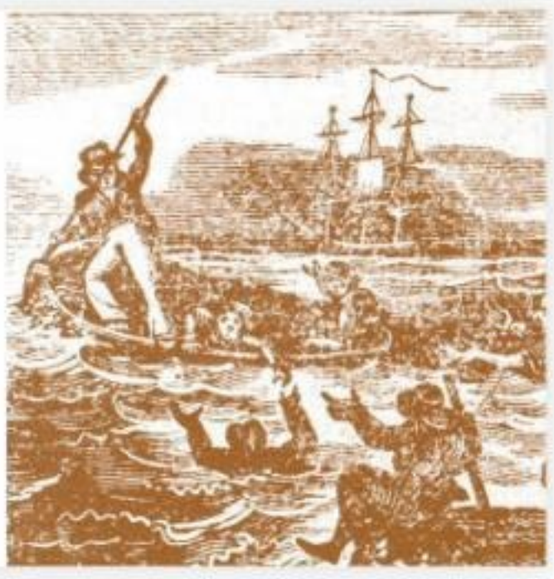
Set Adrift

Pollard and Chase had saved the navigation instruments from the wreckage, and decided that Joy should simply follow their lead. They fixed their course toward the coast. In his diary of the voyage, discovered in 1960, cabin boy Thomas Nickerson wrote how quickly they all realized, "the slender thread upon which our lives were hung."

The officers rationed the biscuits according to Chase's calculations, allowing just 500 calories a day per person. But the shortage of water soon became critical. A month later, on the verge of dying of

RESCUED!

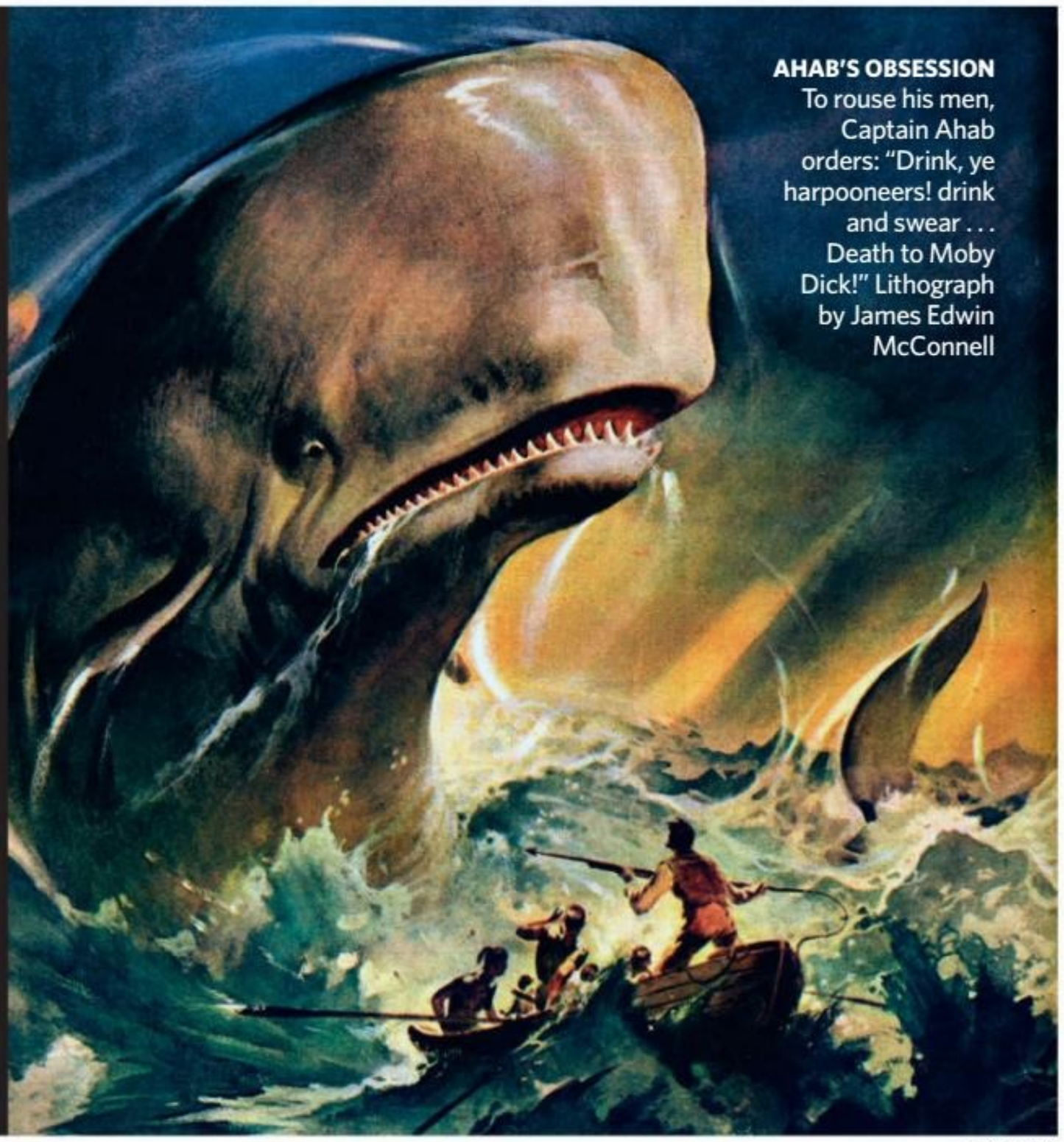
THIS ETCHING re-creates the moment that the three *Essex* sailors who had stayed behind on Henderson Island were rescued by an Australian ship searching for them. Approaching the shore was difficult due to the reefs and the strong tide near the island.



BRIDGEMAN/ACI

Ahab's Inspiration

HERMAN MELVILLE drew on his experiences as a whaler for his 1851 novel *Moby-Dick; or, The Whale,* the story of Captain Ahab and the whaleship *Pequod,* doomed by a quest for revenge on the white whale Moby Dick. The *Essex*'s grisly fate inspired Melville, who knew the ship's first mate personally and used his writings as research. Later in life, Melville recalled meeting Captain Pollard in Nantucket: "To the islanders he was a nobody—to me, the most impressive man tho' wholly unassuming, even humble—that I ever encountered."



AHAB'S OBSESSION To rouse his men, Captain Ahab orders: "Drink, ye harpooneers! drink and swear . . . Death to Moby Dick!" Lithograph by James Edwin McConnell

CULTURE-IMAGES/ALBUM

BRIDGEMAN/ACI

thirst, they reached Henderson Island, a desolate coral islet that was little more than a refuge for a few seabirds. There they found a spring that provided a trickle of brackish water. In a few days they had finished off most of the seabirds on the island. Three survivors chose to stay marooned there, but the rest saw their best hope in taking to the seas again.

Thirst and the brutal sun soon finished off the weakest, and their bodies were thrown overboard. But in the days that followed, hunger forced the survivors to realize that wasting a valuable source of nourishment was foolish. In the end, when the next sailor succumbed, he was dismembered and his flesh cooked on a flat stone in the bottom of the boat. Cannibalism would sustain these men but bring them to the edge of madness.

In time the three boats drifted apart and separated. When Captain Pollard's boat was down to four survivors, the situation took a desperate turn. The captain was persuaded by a crew member, Charles Ramsdell, that they should each draw lots to decide the next to be killed and eaten so that the others could live. The short straw was drawn by Coffin, the captain's 18-year-old cousin. The young man resigned himself to his grisly fate and Ramsdell shot him.

The Rescue

On February 23, 1821, three months after the sperm whale sank the ship, the *Dauphin,* another Nantucket whaling vessel, sighted a small boat filled with sun-bleached bones with the emaciated figures of Pollard and Ramsdell laying amid the carnage. One of the other boats, carrying Chase, Lawrence, and Nickerson, had been rescued some days earlier in similar conditions. The third boat was not so fortunate; it was discovered years later on Ducie Island, manned by three skeletons. The three men who had stayed on Henderson Island survived and were rescued in April 1821.

Captain Pollard returned to sea at the helm of another whaler, survived another shipwreck, and retired from the sea. He ended his days as a night watchman on Nantucket Island, telling few people of the terrible events he had endured. Owen Chase went on to write his chilling account of his months at sea. Chase eventually died many years later in severe mental distress, obsessed with hoarding food in his attic. The horrors of the *Essex* would live on as a source of inspiration for one of America's greatest novels, Herman Melville's *Moby-Dick,* the story of a doomed whaling voyage that ends when the ship is rammed and sunk by a massive white sperm whale.

—Xabier Armendáriz

NUBIAN KINGDOM

Kushite culture blended Egyptian customs into its own, creating a distinctive, visual style. Truncated and with steep sides, the pyramids left by the long line of Nubian kings populate the desert near the site of Meroë.

NIGEL PAVITT/AWL IMAGES

KUSH'S ENDURING SPLENDOR

THE PYRAMIDS OF MEROË

A city of goldworkers and builders, Meroë was the seat of power for the Kushite kings and queens of Nubia (in modern-day Sudan). After ruling as Egypt's 25th dynasty, the Nubians relocated south to Meroë, where their civilization stood strong for centuries.

NÚRIA CASTELLANO

Rising high in the sky in the modern-day nation of Sudan is a plethora of pyramids. They mark the site of the ancient city Meroë, a UNESCO World Heritage site. The center of a powerful civilization, Meroë served as the capital city of Kush whose robust culture thrived for centuries. Their grand architecture and works of art left a lasting testament to the greatness of the Nubian kings and queens.

Located in the desert sands near the Nile in modern Sudan, the ancient culture of Nubia played a decisive role in shaping Egypt from the eighth century B.C., serving as that kingdom's 25th dynasty in the Late Period. After the Nubian pharaohs lost power, they retreated south from Egypt to form the Kingdom of Kush, which thrived in splendid isolation as the rest of Egypt suffered through repeated invasions from Assyrians, Persians, and Greeks.

Because of Meroë's distance, the Kushites were able to retain their independence, developing their own vibrant hybrid of Egyptian culture and religion until well into the fourth century A.D. With access to mines and minerals, the Meroites were expert goldworkers. They built temples, palaces, and royal baths in their capital. Perhaps their grandest achievements are the more than 200 pyramids built at the necropolis at Meroë, giving Sudan more pyramids than all of Egypt. Tall, slender, graceful: These monuments bear witness to the lasting splendor that was Kush.

Egypt's 25th Dynasty

In the late 20th century A.D. Swiss archaeologist Charles Bonnet spent decades excavating the lands surrounding the southern Nile. He found evidence of a civilization grown rich from trade and abundant with fields and livestock, a kingdom distinct from Egypt with its own material culture and traditions. This civilization grew in power just as Egypt's Middle Kingdom was in decline around 1785 B.C. By 1500 B.C., the Nubian empire roughly stretched from Wadi Halfa south to Meroë.

Centered on its original capital at Napata, the Nubian ruling dynasty continued to flourish militarily and economically through the ninth century B.C. Around 730 B.C., the Nubian king, Piye, successfully invaded and conquered Egypt, extending his control to the whole Nile Valley. Piye became the first pharaoh of Egypt's 25th dynasty (ca 770-656 B.C.), the so-called Black Pharaohs.

Piye died in 715 B.C., having reigned 35 years. Although he had returned to Nubia after conquering Egypt, he wished to be buried in the Egyptian style, a request his subjects granted. Entombed in a pyramid, Piye was the first pharaoh in more than 500 years to be buried this way.

A MEROË KING STANDING BEFORE THE EGYPTIAN GOD RE. ENGRAVED GOLD PLAQUE, ARCHAEOLOGICAL MUSEUM, KHARTOUM, SUDAN
WERNER FORMAN/GTRES

PYRAMIDS AND POWER

8TH CENTURY B.C.
Construction of the south and west cemeteries begins in Meroë, then the second city of the Kingdom of Kush, whose capital was at Napata.

3RD CENTURY B.C.
As space in Meroë's south cemetery runs out, expansion begins in the north cemetery of the city's growing necropolis.

ROYAL REST

There are 41 tombs in Meroë's north cemetery, 38 of which belong to monarchs who ruled the region between 250 B.C. and A.D. 320.

FABIAN VON POSER/AGE FOTOSTOCK

250 B.C.

King Arakamani relocates the royal necropolis from near Napata to Meroë, which becomes the kingdom's spiritual and political capital.

1ST CENTURY A.D.

Queen Amanirenas leads her troops against the Romans. Her successor, Amanishakheto, is buried with costly grave goods.

2ND CENTURY A.D.

Building methods change. The Meroë pyramids are faced with brick instead of stone, and then a layer of plaster, which is painted.

A.D. 350

An invasion by the kingdom of Axum brings Meroë's dominance to an end. The city and royal necropolis are eventually abandoned.

A SMALL CHAPEL TOMB
(ca 13th century B.C.) at the necropolis of the ancient city of Deir el Medina, near Luxor in Egypt. The pyramids of Meroë adopted a strikingly similar design.

WAEL HAMDAN/AGE FOTOSTOCK

GOLD RING FOUND IN A MEROË TOMB. THIS EGYPTIAN-INFLUENCED PIECE DEPICTS AN *UDJAT*—EYE OF HORUS—FLANKED BY TWO COBRAS. STATE MUSEUM OF EGYPTIAN ART, MUNICH
BPK/SCALA, FLORENCE

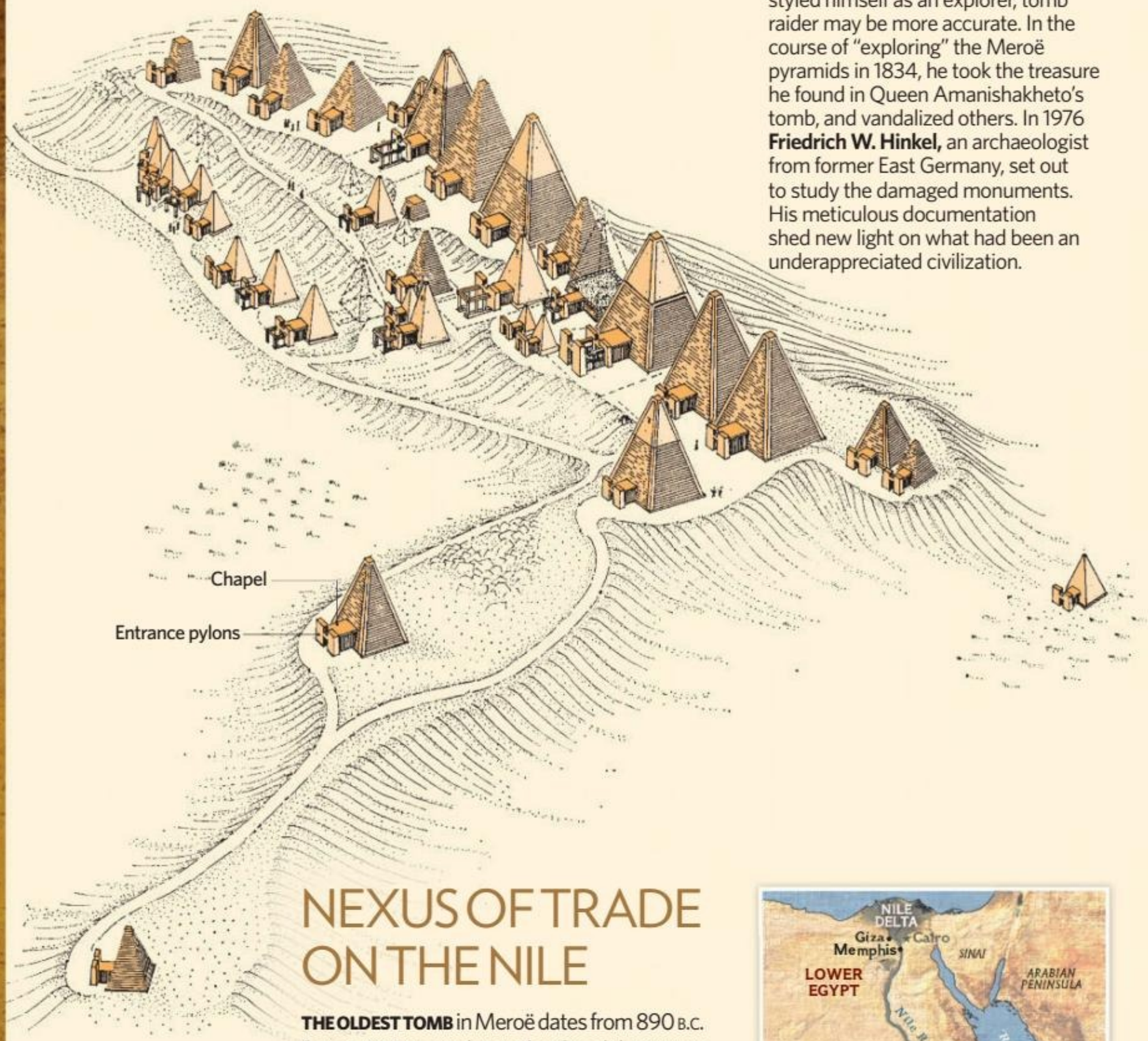
The 25th dynasty would last for three-quarters of a century. Its reign ended in turmoil when an Assyrian invasion of Egypt caused it to fall from power. The victors struck the names of the 25th dynasty from monuments across Egypt, destroying their statues and stelae to erase their names from history.

After the defeat, the Nubians retreated to Napata, only to be forced farther south at the beginning of the sixth century B.C., when Pharaoh Psamtek II, part of the 26th dynasty, sacked Napata. The Kushites designated the city of Meroë, which sat farther south along the Nile, as the new capital. This new location was carefully considered. Not only strategically positioned at the crossroads of inland African trade routes and caravan trails from the Red Sea, the land around Meroë was also fertile and blessed with significant natural resources—iron and gold mines that fostered the development of a metals industry, especially goldworking.

Royal Tombs

The Kushites' burial culture had been touched by a synthesis of Egyptian and African religious and cultural practices. Even after relocating south, the Kushite kings continued to be buried in the necropolis at Nuri, near Napata, a center of the cult of the Egyptian god Amun.

Meroë would become the preferred necropolis later, around 250 B.C. There are two main burial areas: the south cemetery and the northern burial ground. The south cemetery was the oldest. When it reached capacity, the northern burial ground was begun. The northern area today contains the best preserved of the pyramids at Meroë. Some of the most impressive tombs here



RECONSTRUCTION OF THE NORTH CEMETERY IN THE NECROPOLIS AT MEROË. DRAWING BY FRIEDRICH W. HINKEL

THEFT OR EXPLORATION

Although the Italian **Giuseppe Ferlini** styled himself as an explorer, tomb raider may be more accurate. In the course of "exploring" the Meroë pyramids in 1834, he took the treasure he found in Queen Amanishakheto's tomb, and vandalized others. In 1976 **Friedrich W. Hinkel,** an archaeologist from former East Germany, set out to study the damaged monuments. His meticulous documentation shed new light on what had been an underappreciated civilization.

NEXUS OF TRADE ON THE NILE

THE OLDEST TOMB in Meroë dates from 890 B.C. Some 400 years later, the Greek historian Herodotus was the first to refer to Meroë by name, which he described as a great city dedicated to the gods Isis and Amun. Herodotus's account, and the city's position on the trade route linking the Red Sea and the Nile, fueled Meroë's reputation as an almost mythical city of wealth. Although the Meroitic language has yet to be deciphered, archaeologists know Meroë was a center of goldworking and iron smelting. The city occupied one square mile, and consisted of palaces and rectangular mud buildings overlooking fertile fields.

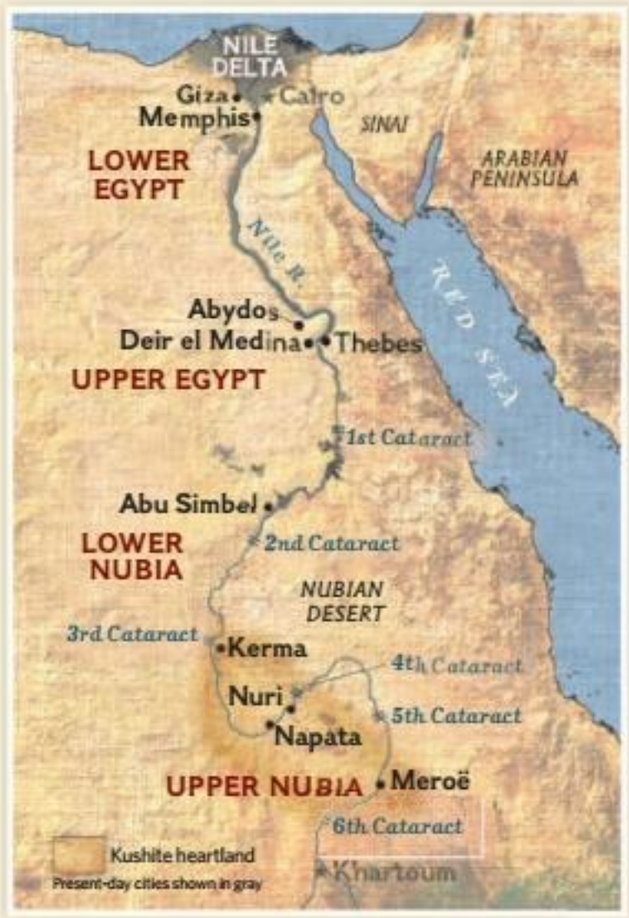


ILLUSTRATION: ALBERTO BERENGO GARDIN. MAP: EOSGIS.COM

Meroë's Powerful Sisters

ONE OF THE MOST REMARKABLE features of Meroitic civilization was its strong queens. In his *Geography*, Greek historian Strabo wrote of a queen called "Candace" who signed a peace treaty with the emperor Augustus. Candace, in fact, means "sister," and was the title given to Kushite queens. There were many queens in Meroë, such as Amanirenas—the "Candace" Strabo was referring to—and her successor, Amanishakheto, whose treasure was looted in 1834. Archaeologists have recently been studying the funerary chamber of another queen, Khennuwa, whose tomb was excavated by George Reisner in 1922.

THE TOMB OF QUEEN KHENNUWA IN MEROË. THE ART ADORNING THIS FOURTH-CENTURY B.C. TOMB IS RELATED TO THE STYLE OF EGYPT'S 25TH DYNASTY, THE BLACK PHARAOHS, FOUR CENTURIES EARLIER.

PAWEL WOLF. GERMAN ARCHAEOLOGICAL INSTITUTE

are the final resting places for 30 kings, eight queens, and three princes.

Meroë's earliest pyramids were step pyramids. Scholars have speculated that cylinders or spheres may have once topped the pyramids, made of materials that have since been destroyed or perished. The later structures, built in the third century A.D., are simpler with smooth, steep sides. In spite of the clear influence of the classic Egyptian design, Meroë's pyramids are notably smaller and generally lack the *pyramidion,* a pointed capstone. Their design more closely resembles the chapel pyramids built at Deir el Medina near Luxor. These were built during Egypt's New Kingdom period (1539–1075 B.C.), a period when many Egyptian customs began to appear in Kushite culture.

SEBIUMEKER, THE MEROITIC GOD OF PROCREATION, WAS ASSOCIATED WITH THE EGYPTIAN CREATOR GOD, ATUM. SANDSTONE STATUE FROM MEROË, FIRST CENTURY B.C. CARLSBERG GLYPTOTEK, COPENHAGEN

PRISMA/ALBUM

The stones were set in place with a *shaduf,* or shaft, a device used as a lever to raise stone blocks. The outside was faced with brick and then covered with brightly painted plaster.

Steps were carved into the rock to the east of each pyramid leading down to a sealed entrance. Behind it lay underground rooms with vaulted ceilings: three for a king and two for a queen. In the oldest pyramids, the burial chamber was decorated with scenes from the Egyptian Book of the Dead. A wooden coffin, depicting the dead person's face, was placed in the burial chamber. The sacrificed bodies of animals and, in some cases, of human servants were placed nearby.

Attached to one side of a standard Meroë pyramid was a chapel, its entrance formed by twin tapering pylons. Inside, it was common to place a stela, an offering table, and a distinctive element of Meroë culture: a statue of the *ba*—the aspect of the human soul believed to give the deceased their individuality—depicted as the body of a bird and a human head.

The Endurance of Kush

Kush prospered for centuries, but Queen Cleopatra's death in 30 B.C. brought change. Egypt became a province of the nascent Roman Empire, straining the fragile truce that the Kushites had brokered with Rome. Tax revolts in Upper Egypt led to Roman incursions into Kushite territory, threatening their lucrative gold mines. Meroite forces attacked Roman troops in Aswan—the most southerly frontier of the Roman world—led by the fearsome Queen Amanirenas of Meroë. In his great work *Geography,* the Greek scholar Strabo describes her as Queen Candace, "a masculine woman . . . who had lost an eye." This memorable commander was eventually beaten back to Meroë, but from then on, the Meroitic civilization was largely left in peace.

Meroë was abandoned in the fourth century A.D. Over the centuries, rumors spread of its monuments and the gold they contained, eventually reaching the Italian tomb robber Giuseppe Ferlini. In 1834 Ferlini arrived in Meroë, where he set about looting the graves. The damage Ferlini caused is still lamented by archaeologists, but the few exquisite artifacts he brought back opened the eyes of European scholars to this mysterious culture that had absorbed the ancient traditions of pharaonic Egypt. ■

A SPECIALIST IN THE LATER EGYPTIAN DYNASTIES, NÚRIA CASTELLANO IS AN EGYPTOLOGIST AT THE UNIVERSITY OF MURCIA, SPAIN.

NUBIA'S ROYAL TREASURES

The jewels of Meroë's first-century B.C. queen Amanishakheto were stolen in 1834 by Giuseppe Ferlini. Today they are on display in the State Museum of Egyptian Art, Munich, and the Egyptian Museum of Berlin.

ARMLET
Multicolored glass paste pieces inlaid with gold. The clasp depicts the god Amun with a ram's head before a chapel door.

RING
Glass paste and gold. Adorned with the head of the god Amun in the form of a ram with a headdress made of vulture feathers

SEAL RING
This gold ring shows two royal figures holding a child. One adult may be Amanishakheto. The child may be her son and heir.

PHOTOS: EGYPTIAN MUSEUM OF BERLIN/BPK/SCALA, FLORENCE

THE GODS BLESS THE QUEEN

THIS SANDSTONE RELIEF was found in the funerary chapel of the Kushite queen Shanakdakhete who reigned during the second century B.C. Shanakdakhete was the first queen to personally exercise power in Meroë, and is believed to have left the throne to a son, the prince depicted in the relief. Although the Meroitic culture had developed its own distinctive customs—such as its own script, and powerful women rulers—the style of the carving, and the presence of the Egyptian gods Osiris, Thoth, and Isis point to a strong influence from Egypt. Adopting an Egyptian title used by the pharaohs, Shanakdakhete styled herself "Lord of the Two Lands." The relief, constructed from a total of 51 blocks, formed the south wall of her steep-sided pyramid in Meroë's north cemetery.

1 Rows of high-ranking officials bring offerings, parading before the gods and the queen Shanakdakhete.

2 A large table is loaded with offerings of food and drink to lay before Osiris, the god of the underworld.

3 Tables are laid out in an offering before Thoth, the god of writing, who served as the scribe of the underworld.

4 Queen Shanakdakhete presides over the scene. Under her throne lie bound prisoners, in thrall to her power.

5 A prince rests on a footstool. Below him are more young people, perhaps the queen's children.

6 The goddess Isis spreads her protective wings to bless both Queen Shanakdakhete and her family.

THIS SANDSTONE RELIEF, FOUND IN THE FUNERARY CHAPEL OF QUEEN SHANAKDAKHETE FROM THE SECOND CENTURY B.C., IS DISPLAYED IN THE BRITISH MUSEUM, LONDON.

BRITISH MUSEUM/SCALA, FLORENCE

Bred for Battle

SPARTA'S MILITARY MACHINE

War: Sparta's entire culture centered on it. A lifelong dedication to military discipline, service, and precision gave this kingdom a strong advantage over other Greek civilizations, allowing Sparta to dominate Greece in the fifth century B.C.

ANTONIO PENADÉS

HEAVY METAL
A Greek helmet from the fifth century B.C. At the peak of their power, the Spartans defeated the Persian army, and then turned their ire on neighboring Athens.

BRIDGEMAN/ACI

A SPARTAN CULTURE

Even at its most powerful, Spartans distrusted grand monuments. Sparta's theater, shown here, was built by the Romans in 30 B.C. The site was built near the ancient shrine of Athena Chalkioikos, patron of Sparta.

DEA/AGE FOTOSTOCK

Sparta's enemies, when facing the intimidating Spartan forces, would see a wall of shields, bristling with lances, inexorably bearing down on them—not to the beat of drums, but as the Greek historian Thucydides explains, "to the music of many flute-players, a standing institution in their army, which has nothing to do with religion, but is meant to make them advance evenly, stepping in time, without breaking their order."

Little remains of the ancient city of Sparta, capital of the Laconia region, situated on the Peloponnesus peninsula in modern Greece, but the impact of its unique culture is impossible to ignore. Unlike Athens to the north, Sparta was famed for its austerity—its "spartan" character—was, and is, proverbial. A state run by an inflexible military regime, whose people existed almost entirely to serve the army, the Spartans were legendary for their professionalism, intense physical and mental stamina, and absolute dedication to the defense of their land. No great philosophers would ever arise from Spartan culture the way they did from Athens.

Athens and Sparta

Founded around the ninth century B.C., Sparta's kings oversaw a society with little interest in intellectual and artistic pursuits beyond patriotic poetry. Religion did occupy a central role in this warrior society. An efficient military machine in almost every other respect, war was only unthinkable during the festivities dedicated to Apollo Carneus. These were celebrated every summer, sometimes in full campaign season, and it was considered impious to interrupt them.

The Athenian view of Sparta oscillated between admiration and fear, according to whether their warlike neighbors were allies or enemies. Without Spartan participation in the war against Persia at the beginning of the fifth century B.C.—especially their heroic stand at the critical Battle of Thermopylae in 480—the Persians may well have conquered Greece. Later in the same century, however, Athens found itself at war with its ferocious former ally, a venture that greatly sapped its energy and resources. Even as Athens experienced a Golden Age, the conflict with Sparta largely brought about its political decline.

The Peloponnesian War in which Athens fought Sparta began in 431 B.C. At the outset, the Athenian statesman Pericles ordered all inhabitants of the Attica region to take refuge within the capital's strong walls. Despite grumbling from some quarters that this amounted to cowardice, many Athenians understood Pericles' pragmatism. Athens was strong at sea, but the Spartans were invincible on land. Pericles knew that facing the enemy there would mean certain defeat. Sparta's total dedication to military greatness and discipline earned them their fearsome reputation and their enemies' respect.

THE RISE OF A WARRIOR STATE

730-660 B.C.
Sparta dominates the southern Peloponnesus, creating a slave class known as the Helots.

480 B.C.
Outnumbered at the Battle of Thermopylae, 300 Spartans take a stand against the Persian army.

479 B.C.
Some 40,000 Spartan hoplites play a key role in trouncing the Persians at the Battle of Plataea.

418 B.C.
In a major blow to Athenian power, the Spartans rout the Athenians and their allies at Mantineia.

371 B.C.
At the Battle of Leuctra, Thebes finally defeats Sparta, ending their era of military dominance.

THE SPOILS OF WAR

As pious as they were warlike, the Spartans assiduously presented part of their war booty as an offering at the Sanctuary of Apollo in Delphi. The image shows the Tholos in the Sanctuary of Athena at Delphi.

TOM MACKIE/FOTOTECA 9X12

Boys to Men

From birth, Spartan boys were prepared both physically and mentally for their later, inevitable combat service. Most boys lived with their families until age seven, after which time they were delivered to the *agoge*—part military academy, part boot camp—to be trained as soldiers. Family ties loosened, and young recruits effectively belonged to the state. The first-century Roman historian Plutarch details the regime to which young Spartans were subjected:

> [T]heir training was calculated to make them obey commands well, endure hardships, and conquer in battle . . . When they were 12 years old, they no longer had tunics to wear, received one cloak a year, had hard flesh, and knew little of baths. They slept together . . . on pallet-beds which they collected for themselves, breaking off with their hands—no knives allowed—the tops of the rushes which grew along the river Eurotas.

When war loomed, the Gerousia, the council of elders, decided when to draw from this silo of young fighters. Their proposal then had to be approved by the Spartan assembly. Spartan men aged between 20 and 60 would then be called up, starting with the most experienced. Each year the ephors, or magistrates, chose the 300 best hoplites in Sparta to become the *hippeis*—elite soldiers who formed the king's private guard.

March to War

There were many reasons for launching a military campaign. For example, Sparta might face an existential threat, prompting its participation in the Battle of Plataea in 479 B.C., which effectively ended all Persian attempts to invade the Greek lands. At other times, Sparta engaged in disputes with its rival Greek city-states, especially Athens and Thebes. Slave rebellions had to be nipped in the bud—the Helots, conquered peoples enslaved by the Spartans, had to be routinely subdued.

When facing a foreign foe, the Spartan king would first offer a sacrifice to Zeus Agetor, in order to know whether the gods approved of the campaign. If it was discerned that they did, the official fire bearer, the *pyrphorus,* would take up the sacred fire from the altar and carry it with him throughout the march in order to ensure divine protection. As a bonus, it also provided the expedition with a constant source of fire. The meat of the goats and sheep sacrificed to Zeus was then used as food for the soldiers.

During the march, the Skiritai, the mountain-dwelling mercenaries to the north of Sparta, and calvary were placed at the front. They carried light weapons and formed a daunting defensive and scouting force at the front of the convoy. Next came the hoplites in two long lines, flanking the cargo mules; the Helot slave porters; and the noncombatants—physicians, artisans, blacksmiths, carpenters, and tanners, bearing all the objects that the company might need.

Each soldier would carry 20 days worth of provisions with him. This consisted of rye bread, cheese, and salted meat, which in the spirit of

A BRONZE WALL: POWER OF SPARTAN SHIELDS

KNOWN AS a *hoplon*—from which is derived the name of its bearer, the hoplite—the shield was, together with the spear, the most important weapon of the Spartan warrior. Each shield was circular and convex, weighed more than 15 pounds, and measured three feet in diameter. Shields were specially made out of layers of wood that had been rounded off and glued together. The exterior was covered with a fine layer of bronze, whose surface, glinting in the sun and replicated across the formation, would present a daunting spectacle to an enemy. The Spartan hoplites organized themselves into a tight-packed phalanx that then relentlessly pushed forward behind this wall of bronze.

VITAL PROTECTION

Some hoplite shields, like the one above, were designed with openings through which spears could be thrust. Oliveriano Archaeological Museum, Pesaro, Italy

SCALA, FLORENCE

OUTSIDE HELP

Subjected to—but not enslaved by—Sparta, the mountain-dwelling Skiritai are depicted on this sixth-century B.C. vase as archers. They fought alongside the hoplites as elite mercenaries. Berlin State Museums

BPK/SCALA, FLORENCE

"[The Spartans] were the only men in the world for whom war brought a respite in the training for war." —Plutarch, Roman historian

Spartan egalitarianism was distributed among soldiers and officers alike. Most campaigns took place in the late spring, when water was scarce, so drinking water also had to be hauled.

Every Spartan soldier carried his own weapons, while a Helot slave took charge of his other belongings. At night the soldiers had no more than capes to protect them from the cold. They did not sleep in tents but lay on the ground or under simple shelters.

Eve of Battle

After the army arrived at the border of the Spartan region, the king made a new sacrifice, this time dedicated to Zeus and Athena. Upon reaching the battlefield, the Spartans set up camp in the most appropriate place—close to a water source when possible. The camp itself was laid out in the form of a square, with the animals, supplies, and slaves placed in the middle. The elite Skiritai and cavalry made constant patrols of the high ground to keep watch. Sometimes the guard was more concerned about the Helot slaves trying to flee the camp than about an attack from the rival army.

The Spartan soldiers kept to a strict schedule when on campaign. Having offered the appropriate morning sacrifice, the king gave the day's orders to his officers. There would be physical exercise before breakfast, an inspection, a changeover of those on guard duty and then military instruction. The historian Plutarch notes that, paradoxically, war for Spartans was seen almost as a holiday: "Their bodily exercises, too, were less rigorous during their campaigns, and [they] were allowed a regimen less rigid. They were the only men in the world for whom war brought a respite in the training for war."

In the afternoon the soldiers would compete in athletic exercises in which a polemarch (high-ranking military commander) acted as judge and gave a prize to the winner, this usually being meat for dinner. At the end of the day the soldiers would sing hymns and poems by the seventh-century B.C. poet Tyrtaeus, whose work exalted Spartan patriotism.

At daybreak on the morning of the battle, sometimes within sight of the enemy, the Spartan hoplites would polish their bronze-coated shields, prepare their weapons, and carefully arrange their long hair, as part of a symbolically charged ritual. When the battle was imminent, a young goat would be sacrificed to Artemis Agrotera, goddess of the hunt. The sages examined the entrails under the watchful eye of the king, who would only give the order to attack if he could count on divine approval.

When the trumpet sounded, all the Spartan hoplites would chant a paean or war song called the "Song of Castor," named in honor of a venerated Spartan hero. The singing was accompanied by the flautists who played from their positions within the ranks. The Spartan phalanx, a tight military formation usually eight men deep, would then begin its advance, lances raised, in time with the music. One measure of the Spartan reputation for courage and nerve was the pace with which it proceeded: Its army would draw close to enemy lines more slowly than their rivals, always following the steady rhythm set by the flutes.

Rise to Combat

Sparta's battle methods were similar to those employed elsewhere in the Greek-speaking world. Hoplite warriors formed phalanxes, which advanced in lockstep. The front row presented a barrier of shields locked together, from which a long line of spears protruded.

Unity within the phalanx was crucial, and Spartan phalanxes had a fearsome reputation for holding their formation. During the Peloponnesian War, both the Spartan and Athenian sides made use of an additional class of soldier, the peltasts. This division of light infantry supplemented the heavily armed—and often unwieldy—hoplites. But the phalanx remained the Spartans' primary strength. Enemy commanders justly feared the colossal damage this disciplined mass could inflict.

ARMED AND PROTECTED

Packed into the phalanx, the hoplite used his shield to protect his left side, as seen on this sixth-century B.C. bronze figure. Berlin State Museums

BPK/SCALA, FLORENCE

OLD SOLDIER

Leaving neither monuments nor epics, Sparta's enduring legacy is a military ideal, embodied in Leonidas, hero of Thermopylae, commemorated here in a statue in the modern city of Sparta in Greece.

ZOONAR/N. SOROKIN/AGE FOTOSTOCK

When the first lines clashed, all the soldiers would push forward with their shields. Every hoplite pressed hard against the back of the man in front, while those in the first three or four lines hurled their lances.

The purpose of the phalanx was to smash the enemy line. Until a breach was made, there were few casualties within the tightly packed Spartan lines, and the soldiers behind could immediately cover the gaps left by any men who did fall. If a phalanx did ever fall apart, the soldiers were left vulnerable, tempted to abandon their shields in order to flee. For the Spartans, such an outcome was almost too shameful to contemplate. *Rhipsaspia*, "the throwing away of one's shield in battle," effectively meant desertion.

Victory to Sparta

Despite their frightening reputation, the Spartan army was very restrained when it defeated a foe. According to Thucydides, the Spartans "fought long and stubbornly until the rout of their enemy, but that achieved, pursuing them only for a short time, and not far."

This practice was, at heart, pragmatic: Having secured the military objective, there was little sense in unnecessarily exposing Spartan forces to further danger, especially if the enemy had men mounted on horseback. Instead, the king would order the trumpeters to sound the retreat, and the army would start to retrieve the dead. When vanquished enemies wanted to retrieve the bodies of their fallen, they would send a representative to negotiate the handover with the king of Sparta.

The bodies of the fallen Spartans were carried on their own shields to a site near the battlefield for burial. They would be honored with a memorial engraved with an epitaph, such as that composed for the Spartans who died defending the Thermopylae pass against the Persians: "O Stranger, tell the Spartans that here we remain, obedient to their orders."

In a time-honored Spartan tradition, other markers were often erected on the site of the battle. One of the most common was a tree trunk dressed in the helmet, armor, and weapons of the defeated. If the battle was particularly significant, a stone monument might be constructed, such as the statue of the lion in honor of the Spartan leader Leonidas, which was placed on the battlefield of Thermopylae.

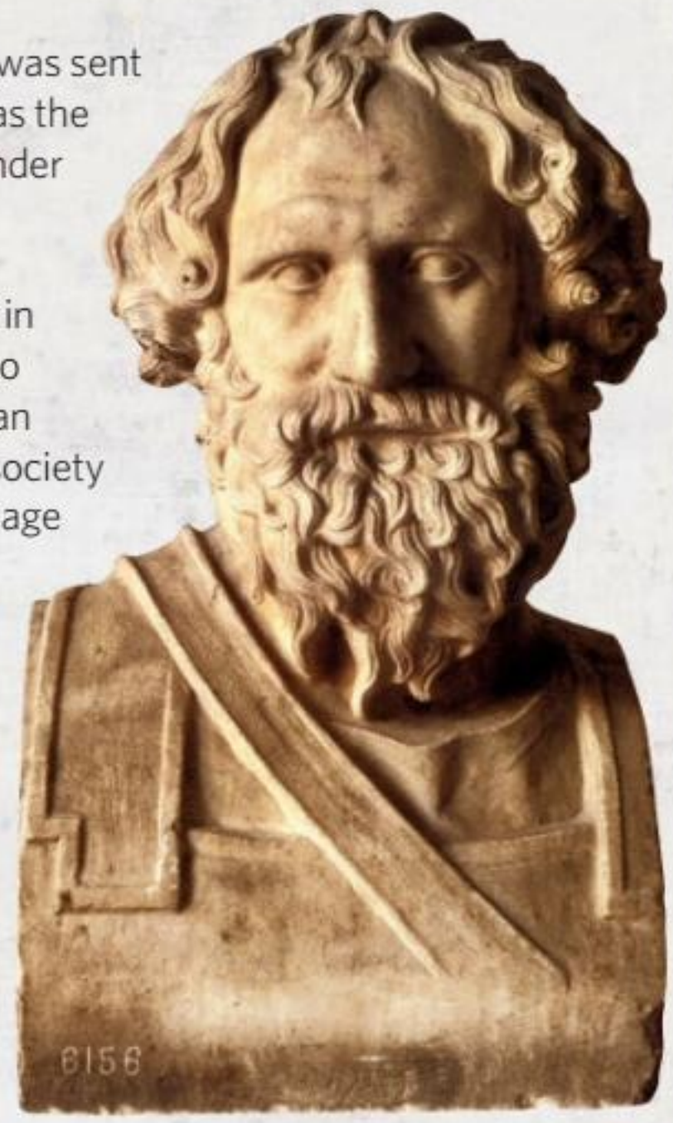
When the rituals were over, the army began their triumphal return to Sparta. For those who did not come back, their family's grief at their loss was salved by the tributes of a society who exalted the fallen as heroes. The worst fate for any Spartan was cowardice on the battlefield.

Throughout history, mothers have wept in seeing their sons set out for war; Spartan women, however, developed another ritual, aimed at preventing the ignominy that would befall them if their son wavered in the line of duty. Plutarch records Spartan mothers handing the shield to their sons, with the exhortation: *Either with this or upon this*—either return with the shield, victorious; or return lying on it, dead. ■

A PROLIFIC WRITER ON SPARTA AND ATHENS, ANTONIO PENADÉS TEACHES GREEK HISTORY AT THE L'IBER MUSEUM IN VALENCIA, SPAIN.

GROWING UP SPARTAN

FROM AGE SEVEN, a Spartan boy was sent to the military academy known as the *agoge,* where he would be put under the supervision of a teacher and instructor, the *paidonomos.* From there, he would then be enlisted in the Spartan army. From age 20 to 29, he was part of the *hebontes,* an age group regarded by Spartan society as not yet fully adult, since marriage was only encouraged after age 30. In theory, all Spartan males were bound to military service until achieving the status of elder, or *geron,* at age 60, but many continued to serve on the battlefield. One of Sparta's later kings, Archidamus III (right) fell in battle in 338 B.C. when he was thought to be around 62 years old.



A KING IN AN AGE OF DECLINE

The forces of King Archidamus III were defeated by those of Thebes at Leuctra in 371 B.C. From that point on, Sparta's reputation of invincibility crumbled.
BPK/SCALA, FLORENCE

THE SPARTANS: READY FOR BATTLE

Given the shared linguistic and historical traits that marked the Hellenic world, it is not surprising that the arms and tactics employed by the Spartans were similar to those of other Greek forces. What gave the Spartans their military advantage was not technology, but culture. The military training around which Spartan identity turned, and the rigid discipline imposed on all Spartans from early childhood, set them apart, and gave them their aura of invincibility.

HOPLITE WITH A SHIELD. SCULPTURE FROM THE TEMPLE TO ATHENA IN AEGINA. GLYPTOTHEK, MUNICH

BPK/SCALA, FLORENCE

HOPLITES DRESSING FOR BATTLE. ATHENIAN CUP FROM THE EARLY FIFTH CENTURY B.C. WIEN MUSEUM, AUSTRIA

GREEK PHALANX FROM A CHIGI VASE IN A PRO-CORINTHIAN STYLE. SEVENTH CENTURY B.C. NATIONAL ETRUSCAN MUSEUM, ROME

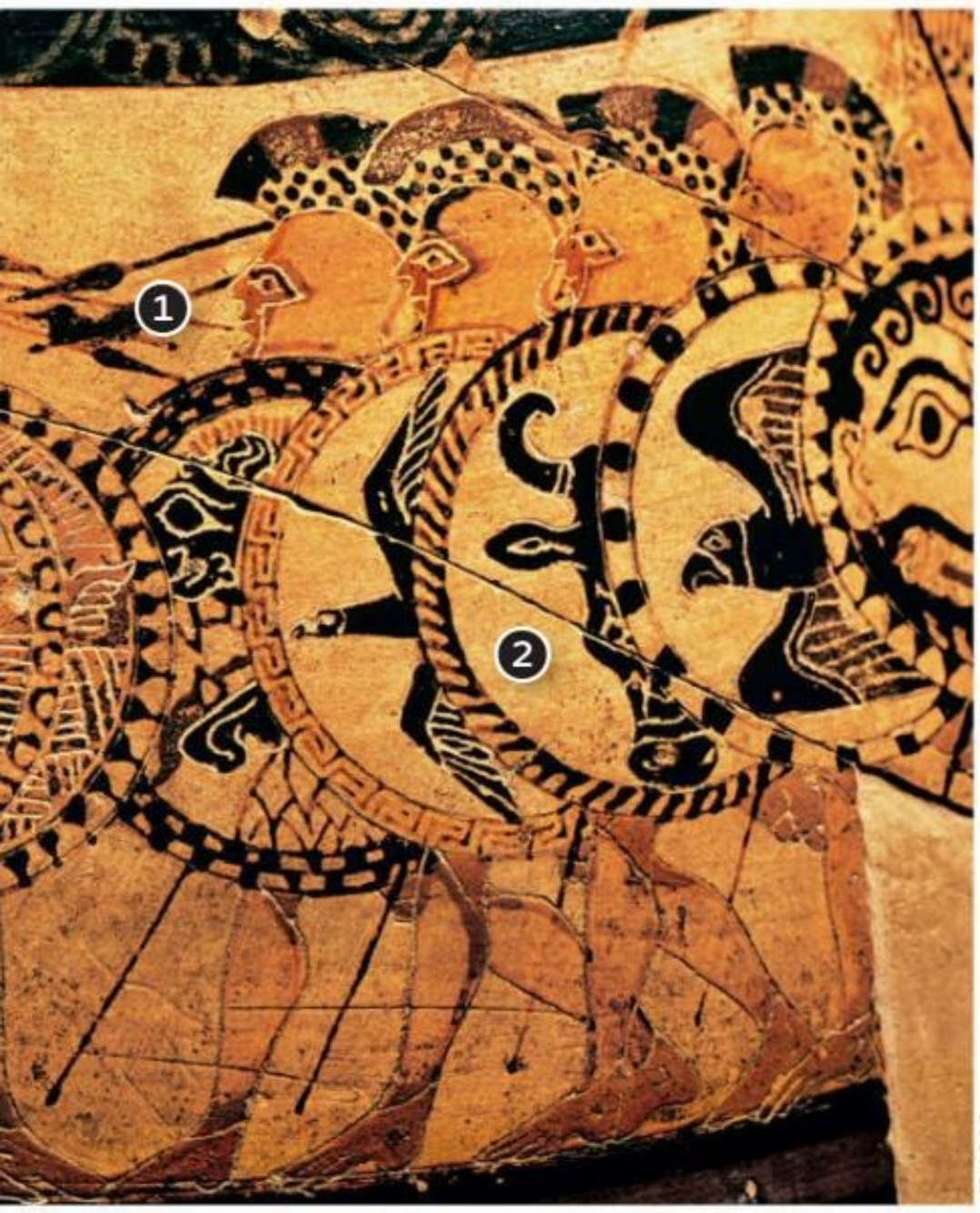
PETER CONNOLLY/AKG IMAGES

THE HOPLITE

DRESSED FOR BATTLE, Spartans and Athenians looked alike. This painted Athenian cup (left) shows the traits that would have been displayed by all such groups across the Greek-speaking world in the 400s B.C. In previous centuries Greek warriors had worn very thick, heavy armor, much of which, by the classical period, had been largely dispensed with. For those fighting on either side in the Peloponnesian War, the armor would have been made up of: ① greaves over the legs; ② a breastplate; and ③ a helmet. By this period, the solid bronze armor plates had been replaced with pieces made from layers of linen stuck together, stiffened by immersion in vinegar and salt, and reinforced with layers of bronze. As well as for defense, ④ the shield was used to batter and barge. Each soldier bore a long lance and ⑤ a short iron sword. Despite the uniformity in hoplite dress, the Spartan warrior wore a distinctive scarlet cape to protect him from the cold, although it was always removed before combat.

BRIDGEMAN/ARCO

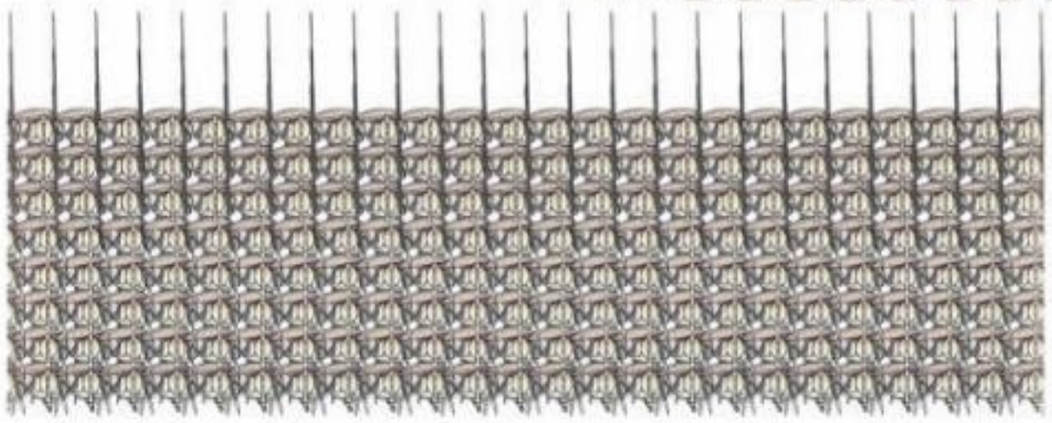
RIGHT: SPARTAN WEARING A CORINTHIAN HELMET AND WRAPPED IN A CAPE. WADSWORTH ATHENEUM MUSEUM OF ART, HARTFORD, CONNECTICUT



ART ARCHIVE

THE PHALANX

THE PHALANX was formed of compact columns of hoplites who maintained the formation at the exact width and depth required. Wielding a greater and more powerful block of fighters than the enemy was one of the keys to victory. The Spartan formation was typically a minimum of eight lines deep. Each soldier had his own ① spear, which he held in front of him, parallel to that of his fellow warriors. The aim for those in the front row was to injure the arms, throat, or eyes of their opponents. The front lines made use of their ② shields to thrust forward into the enemy line and attempt to breach it. If a breakthrough happened, it almost always spelled the beginning of the end for the Spartans' enemies.



DK IMAGES

ABOVE: RECONSTRUCTION OF THE BATTLE FORMATION OF THE GREEK EIGHT-LINE PHALANX CHARACTERISTIC OF THE FIFTH CENTURY B.C.

THE CONTROVERSIAL KING OF JUDAEA

HEROD THE GREAT

In the New Testament King Herod I is a villain, but the Herod of history was more complex. Balancing the needs of the Judaean populace and the rulers of Rome, this consummate politician, ambitious builder, and master organizer was able to transform the Holy Land.

ANTONIO PIÑERO

A STUDY IN CONTRASTS

King Herod's legacy as an innovative builder was established by structures such as the imposing fortress of Masada nestled in the Judaean cliffs. The Gospel of Matthew relates the king's order to murder innocent children, as illustrated in this 13th-century altarpiece (opposite), from Pistoia Cathedral, Italy.

ALTARPIECE: AKG/ALBUM; **MASADA:** DUBY TAL/ALBATROSS/AGE FOTOSTOCK

HALLOWED GROUND

Today worshippers pray at the base of the Western Wall in Jerusalem (above), the only remains of Herod's expansion of the Second Temple, which was later destroyed by the Romans in A.D. 70.

MICHELE FALZONE/AGE FOTOSTOCK

Few figures in history have had such a controversial reputation as King Herod I of Judaea. In the Christian tradition, Herod is the villain in the Christmas story. The Gospel of Matthew recounts how the king orders the death of all baby boys following the birth of Jesus, an event called the Massacre of the Innocents. Calling this king "great" hardly seems fitting, given that atrocity.

To many scholars, however, Herod's honorific is deserved. The king of the Judaeans for the last part of the first century B.C. was a skilled administrator. He created magnificent public building works across Judaea, most notably the colossal reconstruction of the Temple in Jerusalem. Herod saved his people from famine in the mid-20s B.C. Although his reign was largely a time of peace and prosperity for Judaea, he was often treated with deep suspicion by his subjects.

Herod's rule was an exquisite balancing act between appeasing his Roman masters and serving the needs of the Judaean people. The strain of this effort, plus the toxic environment of court intrigue, might have led Herod to become increasingly paranoid, cruel, and erratic toward the end of his life. Some historians believe his behavior during this later period made credible his ordering of the so-called Massacre of the Innocents despite a lack of historical evidence that such an atrocity ever occurred.

SERVANT OF ROME, KING OF JUDAEA

40 B.C.

When the Parthians invade **Judaea,** Herod travels to Rome to persuade the Roman Senate to send military aid. Impressed by Herod, the Senate bestows on him the title King of Judaea.

37 B.C.

After three years of bloody fighting, and the support of Rome, Herod takes **Jerusalem** from the Hasmonaean king Antigonus. Mark Antony later has Antigonus beheaded.

29 B.C.

Ever vigilant about attempts against his life, Herod orders the assassination of his second and favorite wife, the former Hasmonaean princess **Mariamne,** whom he accuses of adultery.

There is, however, one aspect of this colorful king on which all commentators agree: Flattered, cajoled, and used by Rome, Herod the Great was never able to completely win the hearts and minds of all his Jewish subjects. Rome, on the other hand, needed Herod as much as Herod needed Rome, whose culture and language the Jewish king had closely identified with all his life.

Herod's rule over Judaea was continued under his son Herod Antipas—also infamous in Christian scripture as the king reigning during Jesus' ministry and death. Herod the Great and his son became the New Testament's symbol of corrupt earthly authority precisely because of their vital importance in the geopolitics of the day, and the key role they played in the emergence of Rome as the uncontested power in the eastern Mediterranean.

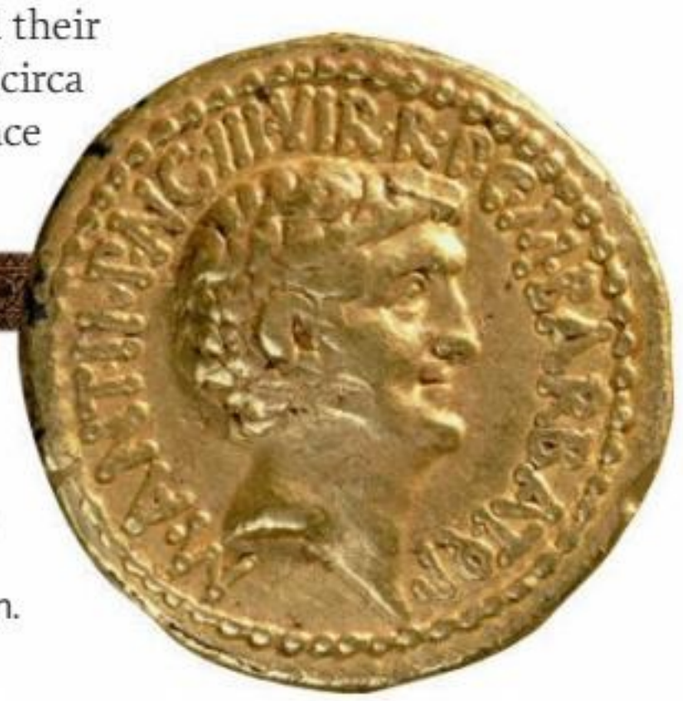
Rise to Power

At the beginning of the second century B.C., the Seleucid dynasty, now in decline, ruled the remnants of Alexander the Great's eastern empire from its base in Syria. Farther south, the Egyptian dynasty that inherited Alexander's holdings—the Ptolemies—was also beginning to crumble. Sandwiched between these two weakening powers, the Jews of Judaea seized their moment in the revolt of the Maccabees (circa 167-164 B.C.), briefly gaining independence

SWITCHING SIDES

Following the downfall of his ally Mark Antony, depicted on a gold aureus (below), Herod rapidly came to terms with Octavian. National Archaeological Museum, Naples

BRIDGEMAN/ACI



20 B.C.

Work begins to expand the **Second Temple** in Jerusalem. Construction has already begun on a new capital, the port of Caesarea on the Mediterranean coast, which Herod makes his residence.

8 B.C.

In a general atmosphere of paranoia, Herod orders the deaths his own sons, **Aristobulus and Alexander.** Shortly before his own death, Herod has another son, **Antipater,** executed, too.

4 B.C.

Herod dies in Jerusalem after a long illness. He is buried with great ceremony in the mausoleum he constructed in the fortress of **Herodium,** his summer palace near Jerusalem.

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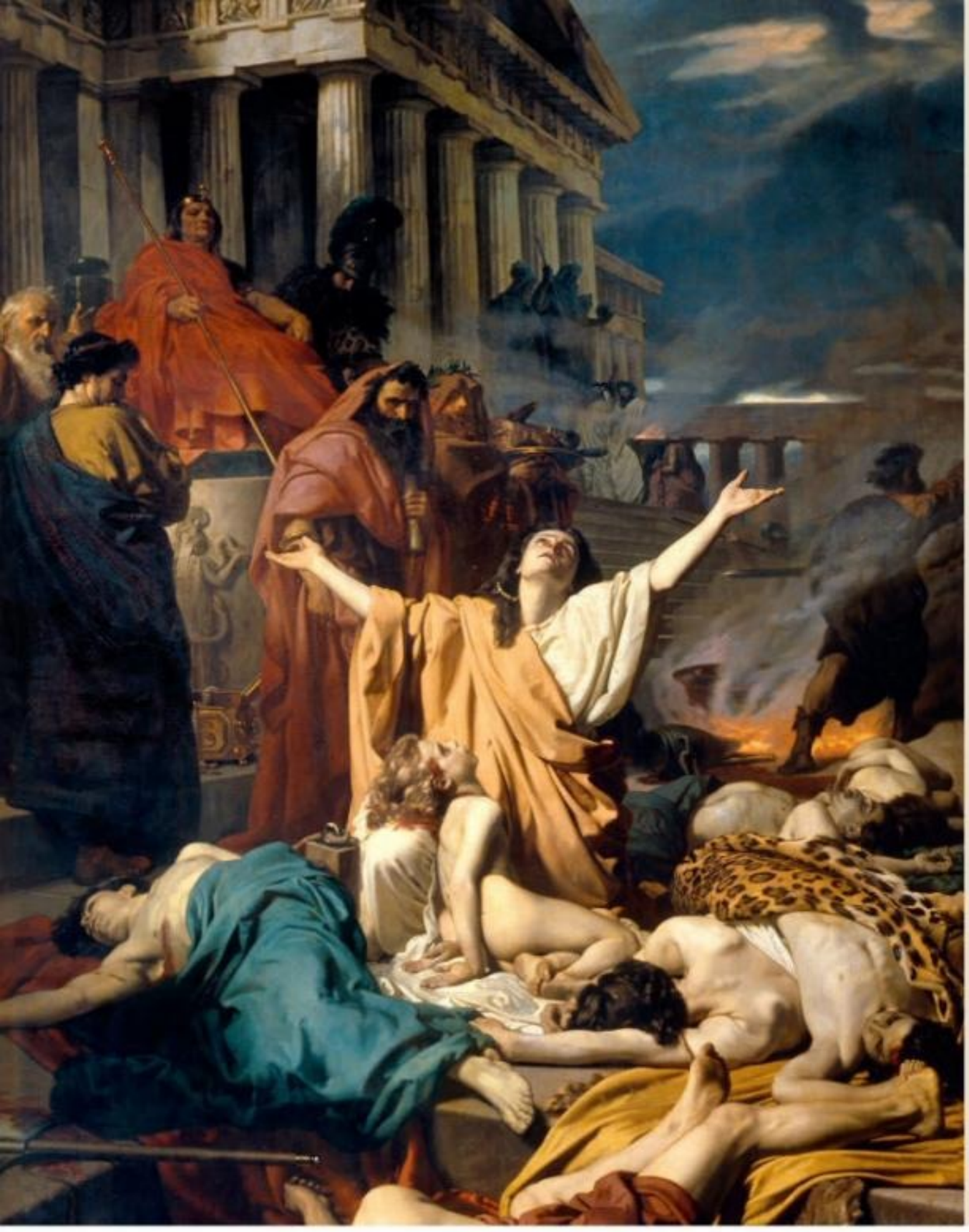


MACCABEE MARTYRS
Antonio Ciseri's 1863 canvas in the church of Santa Felicita, Florence, marks the moment the Maccabees rose against the Seleucids, who had banned the celebration of Jewish rites circa 167 B.C.
AKG/ALBUM

HEROD AS GOVERNOR

REVOLTING AGAINST ROME

The Jewish uprising that began in 167 B.C. against the ruling Seleucid kings was headed by a family of high priests from the Temple in Jerusalem. Known as the Maccabees, their establishment of the independent Hasmonaean dynasty, and their refusal to accept the imposition of Greek Seleucid culture, left a deep mark on the popular imagination. A century later, when the Romans tried to impose dominance on the Hasmonaeans, partisans rose up in the Galilee, dubbing themselves the new "Maccabees." In 47 B.C. Herod, who was then governor of the region, was charged with putting down the threat. Rebels had hunkered down in near-inaccessible caves, but Herod ordered them to be stormed by lowering crate after crate containing soldiers. On their capture, Herod ordered all the prisoners to be killed. Angry protests erupted in Jerusalem, and Herod was called before the religious authorities to answer for his actions. In a sign of the clashes that he would later face as king, Herod asserted his authority, and narrowly escaped being condemned to death.

from Seleucid rule and expanding their territories into lands under the Hasmonaean dynasty.

Having at first received the blessing of Rome, the independent Jewish kingdom increasingly felt the pressure of the Roman Republic's expansion into the region. When Judaea became a vassal state of Rome in 63 B.C., the rulers found a willing collaborator in the form of Herod's father, Antipater, who was made procurator—financial governor—of the new Roman province.

Divided over whether to fight the Romans or join them, civil war broke out among the Hasmonaean dynasty. Antipater's son Herod appealed to Rome for aid, and was appointed king of Judaea in 40 B.C. At that time Jerusalem was occupied by Parthian troops, fighting on behalf of the anti-Roman Jews. With Roman help King Herod retook the city in 37 B.C., from where he developed excellent relations with high-ranking imperial figures, including Mark Antony.

This relationship could have led to Herod's demise, as Antony tried to defeat Octavian (the future Emperor Augustus) but was himself defeated at the Battle of Actium in 31 B.C.

The triumphant Octavian demanded an audience with Herod. Fearing for his life, the Judaean king swore allegiance to Octavian, who confirmed Herod's place as king. The Jewish historian Flavius Josephus writes that Octavian saw Herod's faithfulness to Mark Antony as a good indicator that he would also be faithful to Rome.

In the eyes of his pious, Jewish subjects, however, Herod's loyalty to the pagan Romans and admiration of Hellenistic style smacked of treachery. He had been put on the throne of Judaea only after considerable Jewish blood had been shed by Roman forces. Added to this, his lineage was far from pure. Herod's family had converted to Judaism, but his father's family was descended from Edom and his mother was Arabic. Worst of all, Herod rode roughshod over the customs and laws of the Jewish religion.

Crowning Achievements

Herod carefully cultivated his image as a sophisticate steeped in Greco-Roman culture. If the writers of the New Testament saw him as a tyrant, Herod saw himself as the paragon of

refinement. He befriended leading Roman figures, showering them with invitations to his palaces in Jerusalem and Jericho. The succession of gentile nobles, philosophers, historians, poets, and playwrights flowing through the royal court rankled with the Pharisees and the Essenes, the principal Jewish sects concentrated in and around Jerusalem. In some ways, both groups were very different: The Pharisees represented the establishment, holding high religious office in the Temple, while the Essenes were an apocalyptic sect who wanted to see Judaism purified and reformed. Even so, both believed that the king was intentionally corrupting Jewish customs within his court.

According to the historian Nicholas of Damascus, one of Herod's close friends, the king neglected affairs of state and the study of Jewish law to spend his time studying philosophy, rhetoric, and the history of Greece and Rome. State affairs were delegated to those officials with a Greek education. When the king did carry out religious acts, his pious critics remained unconvinced. Herod knew that ruling Judaea was impossible without the consent of the influential Pharisees, whom he carefully courted with various concessions. He was able to keep them just about on side, but he would never win their total trust or loyalty.

According to the historian Josephus, Herod's new cities irked the Jewish priestly class because their pagan monuments were insultingly close to Jerusalem. Built between 22 and 10 B.C., Herod named Caesarea Maritima for his patron, Caesar Augustus. It was constructed around an artificial harbor, protected with concrete breakwaters. This remarkable feat of engineering was the base of the Herodian fleet, which the king placed entirely at the service of Rome.

Caesarea's temples were dedicated to the goddess Roma, and to Augustus himself. Every five years, Herod organized gladiatorial fights, dedicated to Augustus and his wife Livia, and where foreign dancers almost outnumbered the guests. Magnificent prizes were awarded to the winners, and rumors of wild, orgiastic parties circulated. The Jewish authorities looked on the excess with deep disapproval. They saw gladiatorial fighting

SPECTACULAR CITY

Still in use today, the amphitheater dominated Caesarea Maritima. Named in honor of Caesar Augustus, the project gave Herod the chance to build a completely Roman city from scratch.

DUBY TAL/ALBATROSS/AGE FOTOSTOCK

BURIAL OF A KING

Herod died in his palace at Jericho in the spring of 4 B.C. This illustration by Hongnian Zhang depicts the funeral procession to his massive mausoleum at Herodium.

HONGNIAN ZHANG

A HISTORIAN'S ACCOUNT

KING HEROD'S TIME OF DYING

Many Jews considered Herod's poor health divine retribution for the crimes they believed he committed during his reign. The historian Flavius Josephus, who was writing a century later, left the most detailed chronicle of Herod's reign and wrote of a protracted and painful demise:

"Herod's distemper greatly increased upon him after a severe manner, and this by God's judgment upon him for his sins; for a fire glowed in him slowly, which . . . augmented his pains inwardly; for it brought upon him a vehement appetite to eating, which he could not avoid to supply with one sort of food or other. His entrails were also exulcerated, and the chief violence of his pain lay on his colon; an aqueous and transparent liquor also had settled itself about his feet, and a like matter afflicted him at the bottom of his belly. Nay, further, his privy-member was putrefied, and produced worms; and when he sat upright, he had a difficulty of breathing, which was very loathsome, on account of the stench of his breath; he had also convulsions in all parts of his body."

as fundamentally immoral, believing that all human life belonged to the Most High.

If Caesarea—officially the Judaean capital from 6 B.C.—could be written off as a city for pagans, the holy city of Jerusalem was also threatened by the Romanizing instincts of their ruler. Tension focused on the Second Temple there, a building that symbolizes Herod's complex relationship with his faith.

Begun in 20 B.C., Herod's restoration program refaced the structure in white stone, and doubled the courtyard around it. Herod sought to exalt the Jewish faith, yet did so using Hellenic architects. The grandiose court was soon filled with moneylenders—an affront to pious Jews, who, according to Josephus and other Jewish writers of the time, were angered at the corrupt management of the Temple, an anger felt later by one Jesus of Nazareth: "My house shall be called the house of prayer," Jesus cries in the Gospel of Matthew, "but ye have made it a den of thieves."

Perhaps the most spectacular religious scandal Herod the Great unleashed was the breaching of King David's tomb in Bethlehem. Rumors had long circulated that the tomb believed to be David's resting place hid treasure. Having spent large sums of money on the building of Caesarea, and perhaps seeing himself as the descendant of King David, Herod, it was said, secretly accompanied workmen to rob the tomb. The historian Josephus recounts how, on entering, they found that nothing remained of the riches. According to his account, Herod's two guards were killed by "a flame that burst out upon those that went in," and Herod fled the scene.

Modern historians argue that, in spite of such colorful instances of greed, Herod's rule was remarkably constructive. For all the caviling of the priests, Herod's diplomacy ensured the survival of Jewish identity at a turbulent moment in the eastern Mediterranean. His contribution to the material culture of Judaea was unprecedented. He built the fortresses of Masada and Herodium, as well as ensuring a water supply for Jerusalem. Using his contacts with Rome during the famine of 25–24 B.C., he arranged for the importation of Egyptian grain to feed his people. However, even sympathetic biographers of Herod acknowledge

the violent behavior of his later years did much to sully his legacy.

The Mad King

Throughout his reign, King Herod's domestic life was a source of growing scandal in Jerusalem. In addition to consorting with a large number of concubines, Herod is thought to have had a total of nine wives, and was sometimes married to more than one at the same time.

Palace intrigues and dynastic plots fueled a growing sense of paranoia in Herod. Some may have been genuine, but others were the fruit of Herod's vivid imagination. The continual suspicion of a conspiracy launched by remnants of the Hasmonaean dynasty prompted a wave of bloodletting. Herod had many members of his own family killed during his frequent purges. Among his victims were his brother-in-law Aristobulus the Younger, whom he had previously named as high priest, as well as the former Hasmonaean king Hyrcanus II, who had ruled before him. His wife Mariamne also perished on his orders, and—most brutally of all—her two sons, Alexander and Aristobulus. He disinherited his oldest son, Antipater, borne to him by his first wife, Doris, only to execute him later.

Many civilians also ended their lives in the dungeons of the palace, victims of Herod's systematic plan to eliminate anyone who showed allegiance to the previous Hasmonaean regime.

Tortured by insecurity, Herod's desire for revenge became increasingly lurid. Josephus writes how, having entered his agonizing last illness, Herod ordered that after his death the key noblemen in the country should be corralled into the amphitheater in Jericho and slain with arrows. On his death in 4 B.C., the order was never carried out. There is no direct proof that the slaughter of the innocents in Bethlehem occurred either, although the story is not incredible given Herod's mental state. His actions created an intriguing historical paradox: a ruler who could, on the one hand, create a stable, wealthy kingdom, yet still stir up feelings of distrust and disrespect among his subjects. ■

ANTONIO PIÑERO IS PROFESSOR OF GREEK PHILOLOGY AT THE COMPLUTENSE UNIVERSITY OF MADRID, SPAIN.

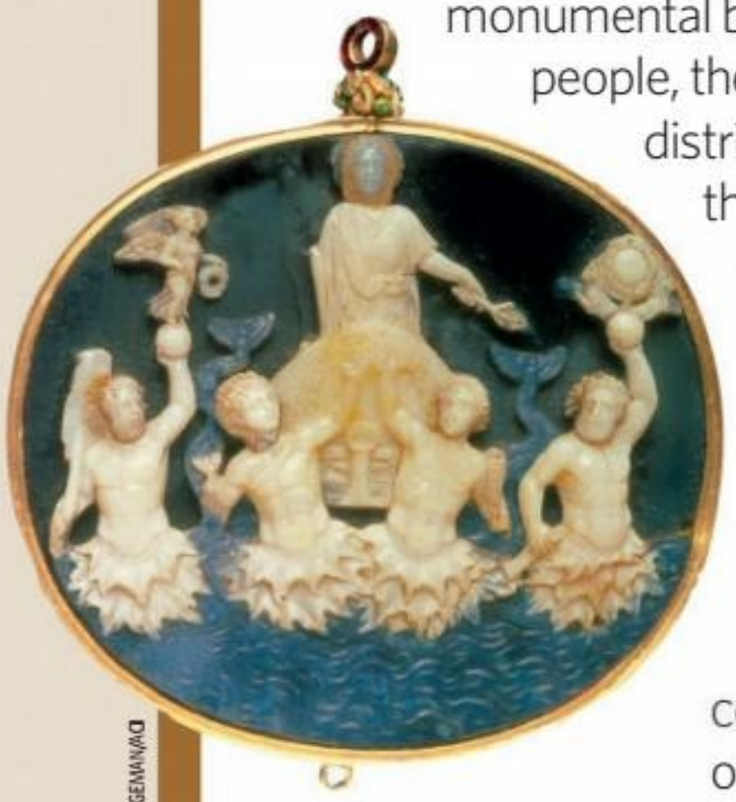
THE FORTRESS ON THE HILL

"Rounded in the shape of a breast," in the words of Josephus, Herod's hilltop fortress of Herodium lies near Bethlehem. His tomb was finally found in the complex in 2007.

BORCHI MASSIMO/FOTOTECA 9X12

JERUSALEM: HEROD'S DREAM CITY

Herod wanted to convert Judaea into the greatest kingdom in the east. A key part of this plan was the transformation of Jerusalem, whose walls he extended, and whose public areas he filled with monumental buildings. Home to 30,000 people, the city was divided into four districts: the upper city, housing the palace and theater, following the Hellenic model Herod so admired; the lower city, with its more modest neighborhoods and the great hippodrome; the north, a commercial neighborhood; and the east, containing Herod's expansion of the Second Temple, his greatest contribution to the Jewish capital city.



BRIDGEMAN/ACI

CAMEO COMMEMORATING AUGUSTUS' DEFEAT OF HEROD'S ALLY MARK ANTONY, IN 31 B.C.

PRESENTATION OF THE VIRGIN BEFORE THE HIGH PRIEST IN THE TEMPLE TITIAN, 1534

ALBUM

Herod stripped Jewish priests of much of the power they had previously enjoyed, earning their disfavor. Under his reign, the jurisdiction of the Temple's high priest was limited to religious issues, and the power of the Jews' supreme tribunal, the Sanhedrin, was significantly reduced.

1 *City Wall*
Herod built up the fortifications on the western side of the city in 23 B.C. The new walls were 50 feet high and were guarded by three monumental towers.

2 *Herod's Palace*
Located to the south of the city, the complex included two luxurious halls adorned with marble and cedarwood, courtyards, colonnades, and gardens.

3 ***Public Plaza***
Alongside Herod's palace, a public plaza or market in the style of a Roman forum was constructed and surrounded by three columned porticoes.

4 ***Antonia Tower***
Constructed in 37 B.C. and named by Herod in honor of Mark Antony, the fortress housed a Roman garrison and was the Praetorian Guard's headquarters.

5 ***Temple***
In 20 B.C. Herod began renovating the old Temple that had been built in the sixth century B.C. following the return of the Jewish exiles from Babylon.

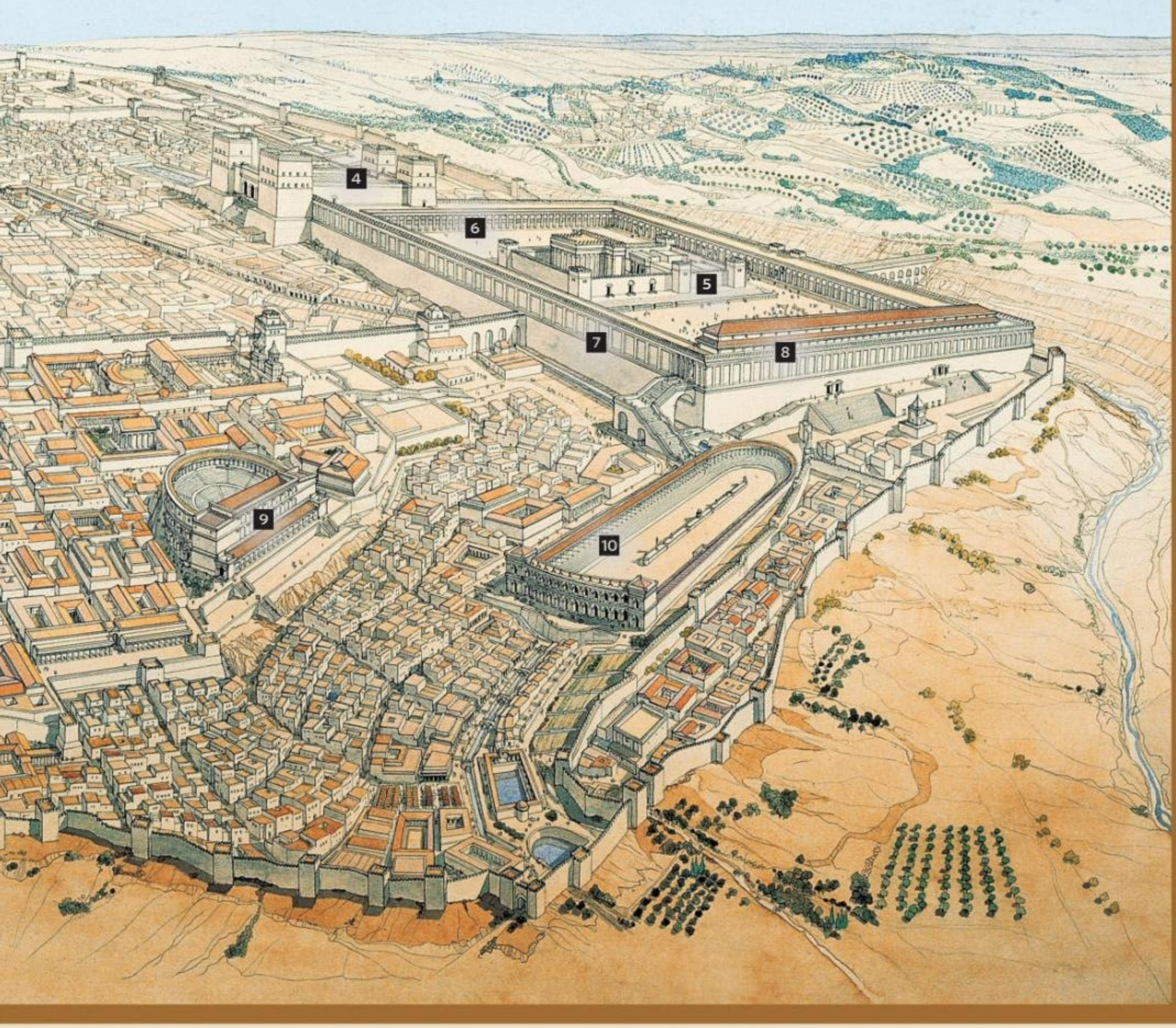
6 ***Esplanade***
Situated on Mount Moriah, this commercial space, some 1,500 feet in length, was flanked with columns. It was open to both Jews and Gentiles.

7 ***Wall***
The great wall of Herod's Temple was built with giant blocks of stone. The lower section of the Western Wall is all that remains today.

8 ***Basilica***
This building situated to the south of the Temple esplanade may have been the meeting place of the Sanhedrin—the supreme Jewish council.

9 ***Theater***
A lover of classical culture, Herod built a large theater in the upper part of the city where plays by Greek and Latin writers were performed.

10 ***Hippodrome***
Following the classical urban model a great hippodrome was erected in the lower zone of the city, where chariot-racing events took place.



WATERCOLOR: JEAN-CLAUDE GOLVIN. MUSÉE DÉPARTEMENTAL ARLES ANTIQUE. © ÉDITIONS ERRANCE

BRIDGING CULTURES

Built in 19 B.C., the Pont du Gard aqueduct piped water to the city of Nîmes in southern France. Water was transported not only for drinking but also for public fountains, such as this Roman one (opposite) shaped like a drinking horn, from the Augustan era. Capitoline Museums, Rome

PONT DU GARD: LUIGI VACCARELLA/FOTOTECA; **FOUNTAIN:** BRIDGEMAN/ACI

QUENCHING ROME'S THIRST

AQUEDUCTS

Ancient masters of engineering, aqueduct builders created a vast network of pipes, channels, and bridges to bring water to Rome, creating in the process an enduring symbol of Roman civilization and innovation.

ISABEL RODÀ

AKG/ALBUM

THE GREAT WASHED

The Caracalla Baths, depicted in this 19th-century engraving, opened in A.D. 217. Thanks to the aqueduct, free public access to baths became a highly valued privilege of Roman civic life.

CLAUDIUS, BRINGER OF WATER

Emperor Claudius (pictured below on a coin) completed Rome's principal aqueduct in A.D. 52. Nearly 43 miles long, the Aqua Claudia delivered water to all of the city's 14 districts.

Rome is known for many things: its military conquests, its civic architecture, temples, roads, emperors, and sculpture. Yet none of these would have been possible without the most vital resource of all: water. Now, as then, water is life, and without effective distribution, there would have been no great Roman civilization. Even until relatively modern times, Roman techniques to collect, store, and channel water over huge distances remained unsurpassed.

Such technology, was not, of course, invented from scratch by the Romans, and many earlier Mediterranean peoples had poured resources and expertise into managing water. On the island of Crete, the Minoans developed sophisticated rain-harvesting and filtering systems as early as the middle of the third millennium B.C. Cretan water management techniques were later adopted across the Greek-speaking world, and examples abound of tunnels, drainage systems, and cisterns, sometimes of considerable size.

Yet although the water management tradition Rome inherited was rich and extensive, no previous system came close to the sophistication and reach of the Roman aqueduct. Striding across the landscape from Spain to Syria, these awe-inspiring structures not only carried life and livelihood but also proclaimed the greatness of Rome.

BRITISH MUSEUM/SCALA, FLORENCE

BRINGING WATER TO ROME

312 B.C.
The censor Appius Claudius Caecus builds Rome's first aqueduct, the Aqua Appia, which runs almost entirely underground.

144 B.C.
Work begins on Rome's longest aqueduct, the 56-mile-long Aqua Marcia. The city has doubled in size since the last channel was built.

AWE-INSPIRING ARCHES

Built by Trajan in the second century A.D. to serve the colony of Emerita Augusta (modern-day Mérida), in Spain, the 100-foot-high Prosperina aqueduct is known locally as Los Milagros, "the miracles," for its breathtaking triple tier of arches.

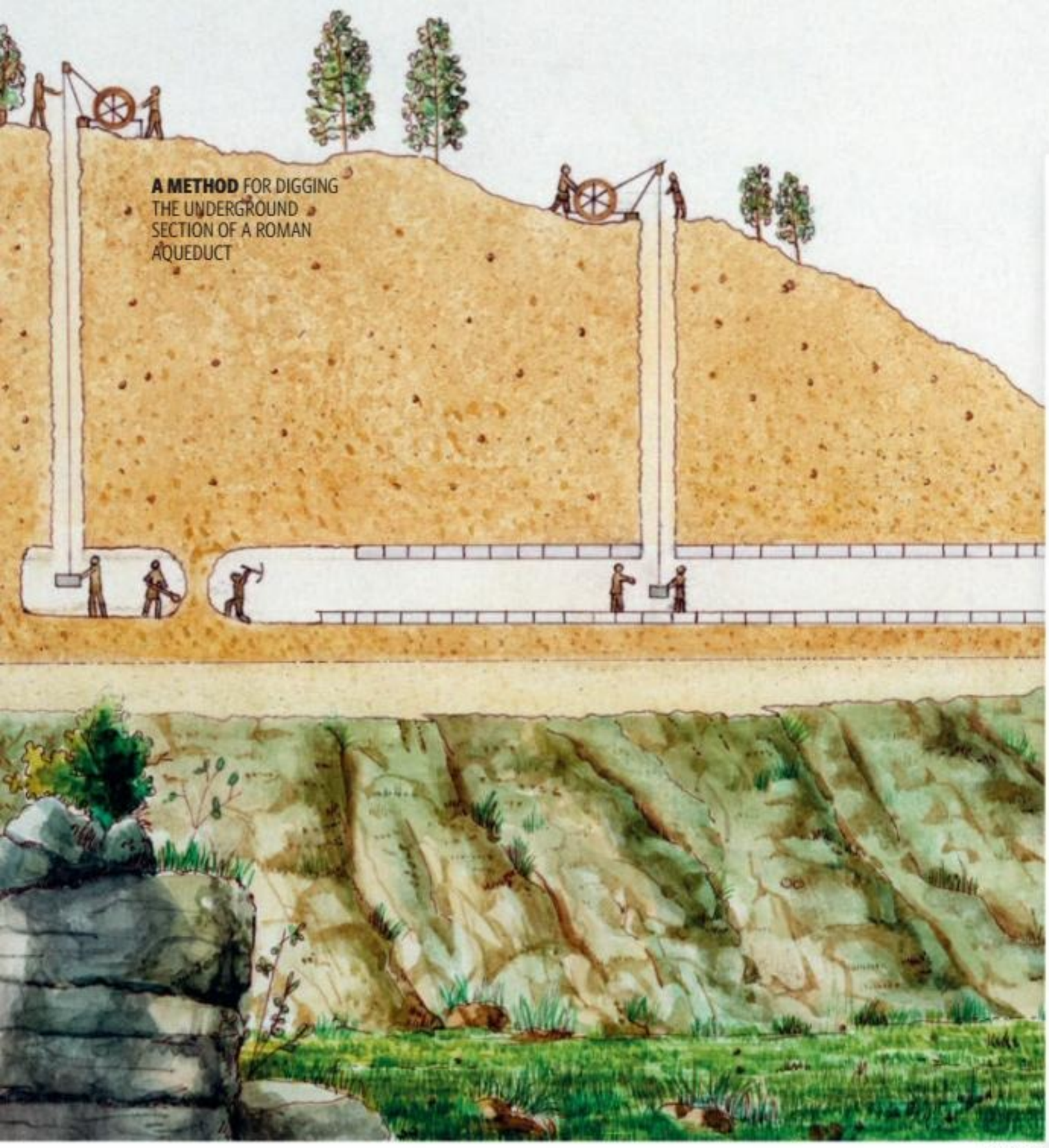
JUERGEN RICHTER/GTRES

33 B.C.
After the chaotic civil wars Octavian (later Emperor Augustus) improves Rome's water by building the Aqua Julia.

19 B.C.
Marcus Agrippa, Augustus's son-in-law, oversees the building of the Aqua Virgo to supply the thermal baths in the Campus Martius.

A.D. 38-52
Caligula begins a new aqueduct to meet increased demand from baths. Claudius finishes the work and calls it Aqua Claudia.

A.D. 109
Trajan builds the Aqua Traiana, which brings water from near Lake Bracciano to supply Rome's new suburbs, known today as Trastevere.



DEA/ALBUM

Digging Tunnels

MOST OF AN AQUEDUCT'S course lay underground, along channels that required huge resources and manpower to build. Once the route had been designed, a series of shafts *(putei)* were dug at intervals of around 230 feet following an ancient Persian technique known as *qanat*. When the planned depth was reached, construction of the channel or *specus* began. The shafts were used to carry away dirt in baskets and send down building materials.

A CRANE WAS USED to lower stone blocks, which may have been brought from a nearby quarry, to form the lining for the tunnel walls. Depending on the local availability of materials, bricks or concrete were sometimes used for this purpose. The channel was usually waterproofed with a layer of *opus signinum,* a kind of mortar made of fragments of crushed tiles and amphorae.

DAGLI ORTI/ART ARCHIVE

HEAVY LIFTING

The Romans perfected the use of the *magna rola,* the treadwheel crane (pictured below), to place the stone blocks used to build the aqueduct arches. A worker treading the wheel on the right could raise considerable weights.

The Lifeline of Empire

Aqueducts were costly public works, and not all Roman cities necessarily required them. Some cities, such as Pompeii, had their water needs met by wells or public and private cisterns dug beneath houses. Some cisterns could reach a colossal size, such as the Basilica Cistern (Yerebatan Sarnıcı) in Constantinople (now Istanbul, Turkey) and the Piscina Mirabilis in Miseno, Italy. The latter, built to provide drinking water to the Roman navy in the Bay of Naples, had a capacity of just under half a million cubic feet. Its colossal vault is held up by 48 pillars. Some cities needed much more water than cisterns could provide. Booming populations such as Rome's—thought to have reached one million in the first century A.D.—needed an entire system of aqueducts not only for drinking water but also for supplying ornamental public fountains and baths.

The popular image many people have of an aqueduct is probably something like the spectacular bridge structure of the Pont du Gard in southern France. These aboveground arches were, in fact, only a small section of an aqueduct system. Roman engineers would create a gentle downward slope all the way from start to finish, since the only force powering the water's progress was gravity. Only valleys or gullies necessitated a monumental arched structure. For most of its route, water ran along underground or ground-level channels. Rome, for example, was supplied by aqueducts totaling 315 miles in length. Of that, 269 miles ran underground and 46 total miles aboveground; however, only about 36 miles consisted of arched structures—just under 12 percent in all.

Keeping the Water Running

Rome had as many as 11 aqueduct systems, the most ancient of which was the mile-long Aqua Appia, first operational in 312 B.C. It was named

1 MATERIALS

Basic Roman construction materials were stone blocks, concrete, mortar, tiles, and bricks. The structure was faced with a mix of lime and crushed ceramic.

2 SCAFFOLDING

As the construction process advanced, wooden scaffolding was built to aid the workmen, many of whom would have been slaves.

3 CENTERING

This wooden structure bore the arch's weight until the last stone was laid. When it was removed, the slotted stones could support their own weight.

4 ARCHES

Bridges could have two or—less commonly—as many as three tiers of arches. Roman engineers opted for narrow arches, which provided maximum strength.

5 PILLARS

Massive pillars, measuring around 10 feet by 10 feet, were required to bear the weight of the arch tiers, and were usually longer at the base of the structure.

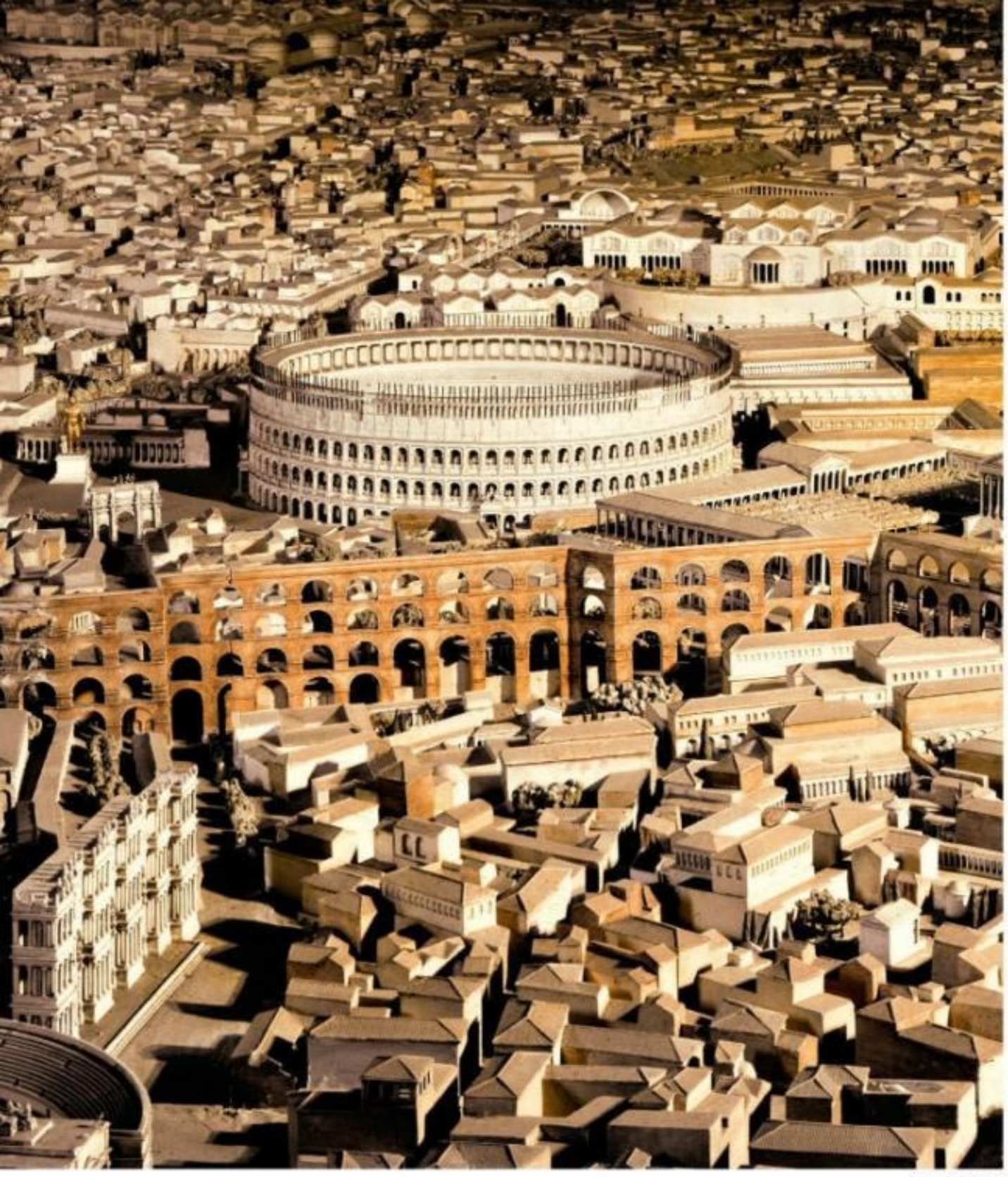
6 SPECUS

The *specus,* or water channel, was on the top level of the viaduct and covered with a roof or vault. Sometimes two or more channels were laid on top of one another.

WORKING WITH GEOGRAPHY

ROMAN PIPING SYSTEMS carried water from sources to the city for dozens of miles. The route had to gently slope to allow gravity to carry the water to its destination. Engineers followed the land's natural grade wherever possible, building channels underground—even if that meant having to make long detours. The Aqua Traiana was a total of 37 miles long, but the distance, as the crow flies, between the spring and Rome was about 31 miles. Only when they had no other choice—when they had to cross a valley or avoid a sudden drop—did they build the spectacular archways, sometimes several stories tall, that dominate the Mediterranean landscape.

SOL 90/ALBUM



SCALA, FLORENCE

THE URBAN LANDSCAPE

A model of ancient Rome (above), on display at the city's Museo della Civiltà Romana, shows the path of the Aqua Claudia, one of Rome's most important aqueducts, passing in front of the Coliseum.

for its sponsor, the censor Appius Claudius Caecus, better known for another great pioneering structure of ancient Rome: the Appian Way, one of the first major Roman roads.

Three more aqueducts were built in the third and second centuries B.C.: Aqua Anio Vetus, Aqua Marcia, and Aqua Tepula. Aided by his son-in-law Marcus Vipsanius Agrippa, Emperor Augustus was particularly active in improving the capital's water supply, repairing old systems and building new ones. The Augustan-era Aqua Virgo—named, according to legend, for the young girl who directed thirsty soldiers to the springs that fed it—has been used uninterrupted ever since its construction. During his reign, Caligula began building two aqueducts that were finished by Emperor Claudius, the Aqua Claudia and Aqua Anio Novus. Trajan built the Aqua Traiana, which is 37 miles long, in A.D. 109. The last of Rome's aqueducts was the Aqua Alexandrina, nearly 14 miles long, built by Alexander Severus in A.D. 226. Some have calculated that, once completed, Rome's aqueducts delivered roughly 1.5 million cubic yards of water per day—about 200 gallons per person. Its water network supplied 11 grand-scale baths, as well as the 900 or so public baths, and almost 1,400 monumental fountains and private swimming pools.

A crucial later stage in the conveying of water was, of course, its disposal. Rome's Cloaca Maxima sewer, which flowed into the Tiber River, became the model for urban sanitation. By the time Pliny the Elder was writing in the first century A.D., the Cloaca was already ancient: "[F]or 700 years from the time of Tarquinius Priscus, the sewers have survived almost completely intact," he notes admiringly in his encyclopedia *Naturalis historia*.

A Titanic Enterprise

From planning to completion, building an aqueduct was an extremely costly enterprise, a project for which many Roman cities proudly raised funds. Evidence shows that money often came from both public and private sources.

Sometimes aqueducts were paid for by leading citizens. The work was usually carried out as part of their political role. For example, as aedile and consul, Augustus' son-in-law Agrippa used his own mines to produce the lead pipes that lined the Aqua Julia and Aqua Virgo. From Augustus' time onward, emperors regularly made donations to the upkeep of this expensive infrastructure.

Among the very few sources to shed light on how aqueducts were built is a Roman funerary monument found at the city of Bejaïa in Algeria. This commemorates the life of one Nonius Datus, an engineer, and recounts the difficulties he encountered in carrying out his work. The long text, written after the aqueduct's completion around A.D. 152, describes how the city's inhabitants lobbied for an improved water supply. The process was not as speedy as might have been hoped. Datus planned the aqueduct's route in around 138. However, the work was not completed until 152, following a series of setbacks, which the monument describes in detail. Most crucially, the teams of workmen who started

ALAMY/ACI

Piped water, baths, and sanitation were a justifiable source of Roman pride.

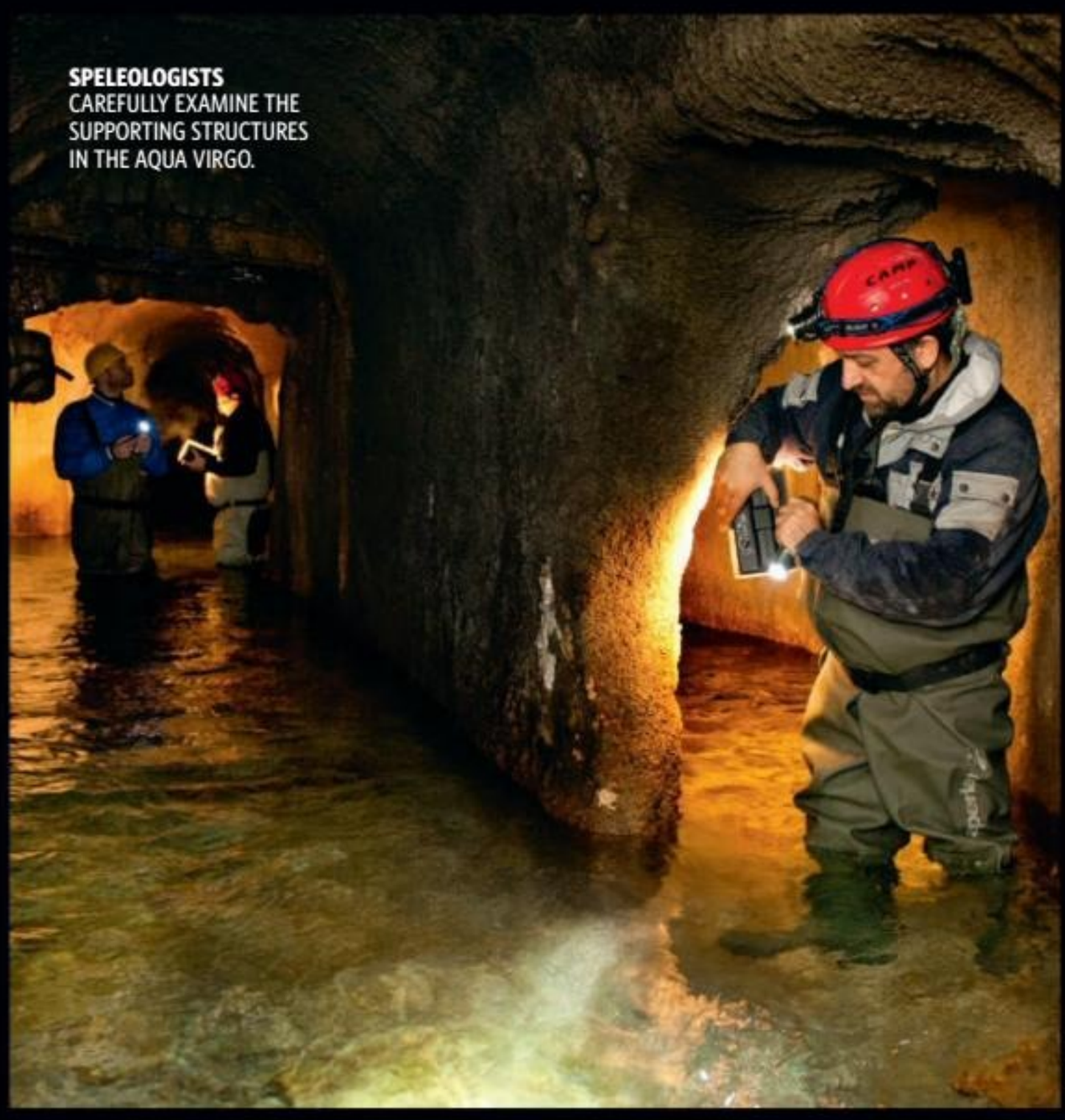
LYBIAN MOSAIC WITH SANDALS. THE LATIN MEANS "BATHE SAFELY."

THE AQUA VIRGO STILL SUPPLIES ONE OF THE MOST FAMOUS FOUNTAINS IN THE WORLD: THE 18TH-CENTURY TREVI FOUNTAIN IN ROME.

RICCARDO AUCI

UNDERNEATH ROME'S FOUNTAINS

THE ONLY ROMAN AQUEDUCT still functioning today is the Aqua Virgo, known in Italian as Acqua Vergine. Built in 19 B.C. to a plan by Marcus Vipsanius Agrippa during the boom in hydrology projects ordered by Augustus, its survival to the present day is a remarkable example of how ancient infrastructure can evolve to meet the needs of different ages. The popes restored it several times in the Christian era: Adrian I, in the eighth century; Nicholas V in the 15th century (he is responsible for installing the vertiginous spiral staircase that makes it possible to climb inside); and Pius V in the 16th century. Concrete structures have been added in more recent times and urban growth has, unfortunately, polluted water that was once highly prized for its purity. Today it is used for irrigation and to supply some of the most beautiful fountains in Rome.



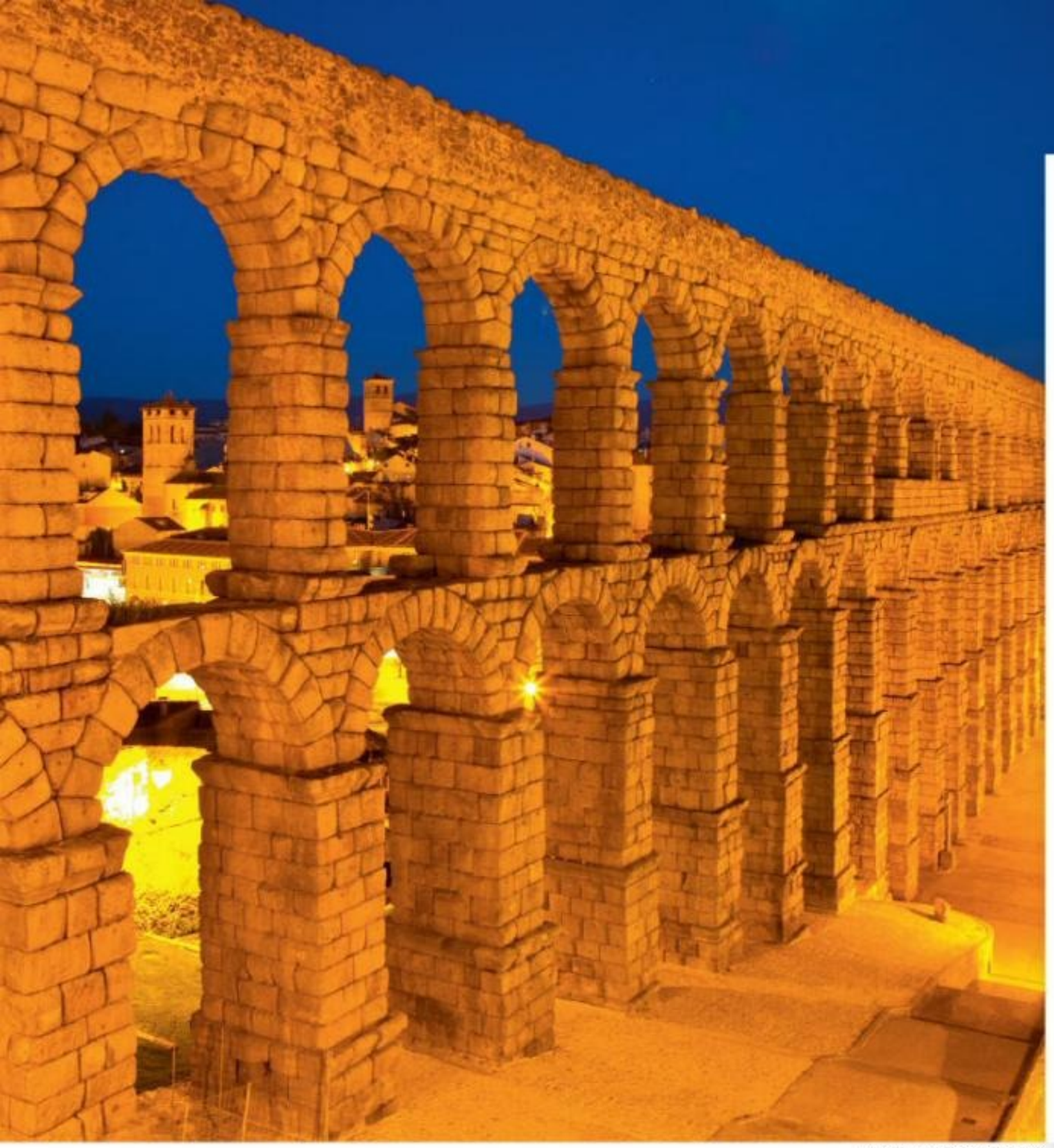
SPELEOLOGISTS CAREFULLY EXAMINE THE SUPPORTING STRUCTURES IN THE AQUA VIRGO.

RICCARDO AUCI

PASSAGE TO ROME

The road to Praeneste (modern-day Palestrina) passed under the colossal double archway of Rome's Porta Maggiore—Greater Gate—while the waters of the Aqua Claudia and Aqua Anio Novus passed along the top. Built in A.D. 52 by Claudius, this multipurpose triumphal arch fused both beauty and practicality, standing as a conspicuous symbol of Roman innovation and power.

PAOLO GAETANO/GETTY IMAGES



JUAN CARLOS MUÑOZ/FOTOTECA 9X12

Bridging Past and Present

ONE OF ROMAN SPAIN'S most iconic monuments, the Segovia aqueduct is a UNESCO World Heritage site, and one of the best preserved Roman aqueducts in the world. Built to carry water from the Frío River 10 miles away, the structure was traditionally attributed to the emperor Augustus. Recent studies have shown it dates from the period of the emperor Trajan in the first part of the second century A.D.

KNOWN BY SEGOVIANS as El Puente ("the bridge"), the aqueduct features 168 arches. In recent years basins have been found alongside the channel, originally built to filter out the sand carried along from its source. Unlike other aqueduct bridges, plundered for their stone, the Segovia structure has been in almost constant use since its construction, ensuring it has survived intact for nearly 2,000 years.

excavating the two sides of the tunnel did not meet where they were supposed to. On another occasion, bandits attacked the site and Datus escaped by the skin of his teeth, naked, battered, and bruised.

The Roman administration expended huge efforts not just in conveying water, but in maintaining its purity. A large group of specialized workers known as *aquarii,* ensured the aqueducts' proper operation and cleanliness. These technicians carried out repairs and systematically cleaned the channels to prevent blockages and maintain a decent water quality. The channel along which the water flowed was always kept covered and tanks called *piscinae limariae* were placed along the route into which impurities were regularly decanted.

Siphoning Off

Even for Romans, private access to water came at a price. Homeowners who could afford running water paid for the service based on the diameter of their access pipe, a not entirely foolproof billing system. There are records of homeowners slyly installing wider pipes than those for which they paid. This scam led to the invention of the calix, a sleeved pipe fitted into the wall, which was decorated to prevent forgeries or alterations. They were also used in the *castella aquarum,* the tanks from which water was distributed to different parts of the city. Despite regulation, some Romans tried to steal water from the source and would drain off water from the aqueduct or bribe the aquarii to do so. In the first century A.D. the senator Sextus Julius Frontinus mentioned this practice in his treatise *De aquaeductu* as "*fraus aquariorum*": plumbing fraud.

To such a practical people as the Romans, aqueducts were a source of great pride and even part of their identity. Frontinus made that clear in his treatise on these great public works. "With such an array of indispensable structures carrying so much water, compare, if you will, the idle Pyramids or the useless, though famous, works of the Greeks!" ■

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HOW DID THEIR GARDENS GROW?

Well-to-do Romans had ornamental fountains in their gardens, as shown by this fresco from the first century A.D., found in the House of the Golden Bracelet in Pompeii.

SCALA, FLORENCE

A PALACE BUILT FOR WATER

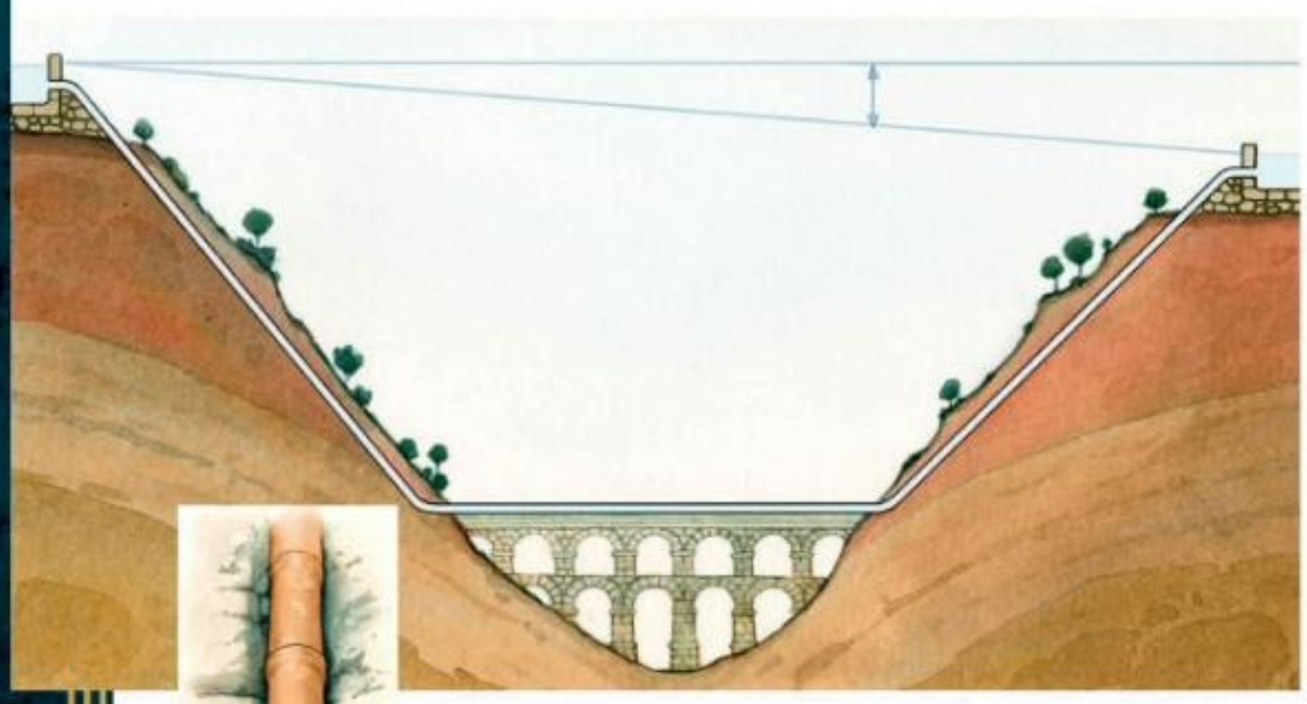
Impressive as any aqueduct, the Basilica Cistern (Yerebatan Sarnıcı) in Istanbul—built in Emperor Justinian's time in the sixth century A.D.—could hold nearly three million cubic feet of water.

STEFANO BROZZI/FOTOTECA 9X12

FROM SOURCE TO CITY

Roman aqueducts were an engineering marvel, designed to circumvent any number of natural challenges—from hills and valleys to purification and storage. Roman engineers used gravity to power the water's flow on its journey. The water traveled down along a gentle, uniform slope moving through hills in underground tunnels and over valleys via soaring arches. Pools to decant impurities and water distribution tanks were built along the route. Without the aqueduct, Rome could not have grown to one million people. Local rivers, wells, and springs would have become polluted or exhausted in such a large city.

An aqueduct's underground channel. This cross section shows the vaulted construction and the coating of the cavity up to the water's normal level with *opus signinum*, a mixture of lime mortar, sand, and silica.



Trap system. The water flowed from a cistern into a U-shaped pipe. The pressure from the water backed up behind could push it up to a slightly lower point on the other side of the valley. The arches reduced the slope that had to be negotiated. The lead pipes were buried some three feet deep into the hillside.

DIAGRAMS: SANTI PÉREZ

WATER SOURCES

The ideal source produced clean water, free of vegetation and silt. In order for the water to be conveyed to a population center, the source had to be located on higher ground.

POOLS

In the aqueduct's initial stretch, the water went through a decanting tank. This slowed the flow, so that silt and other impurities in the water would settle at the bottom.

MULTISTORY ARCHES

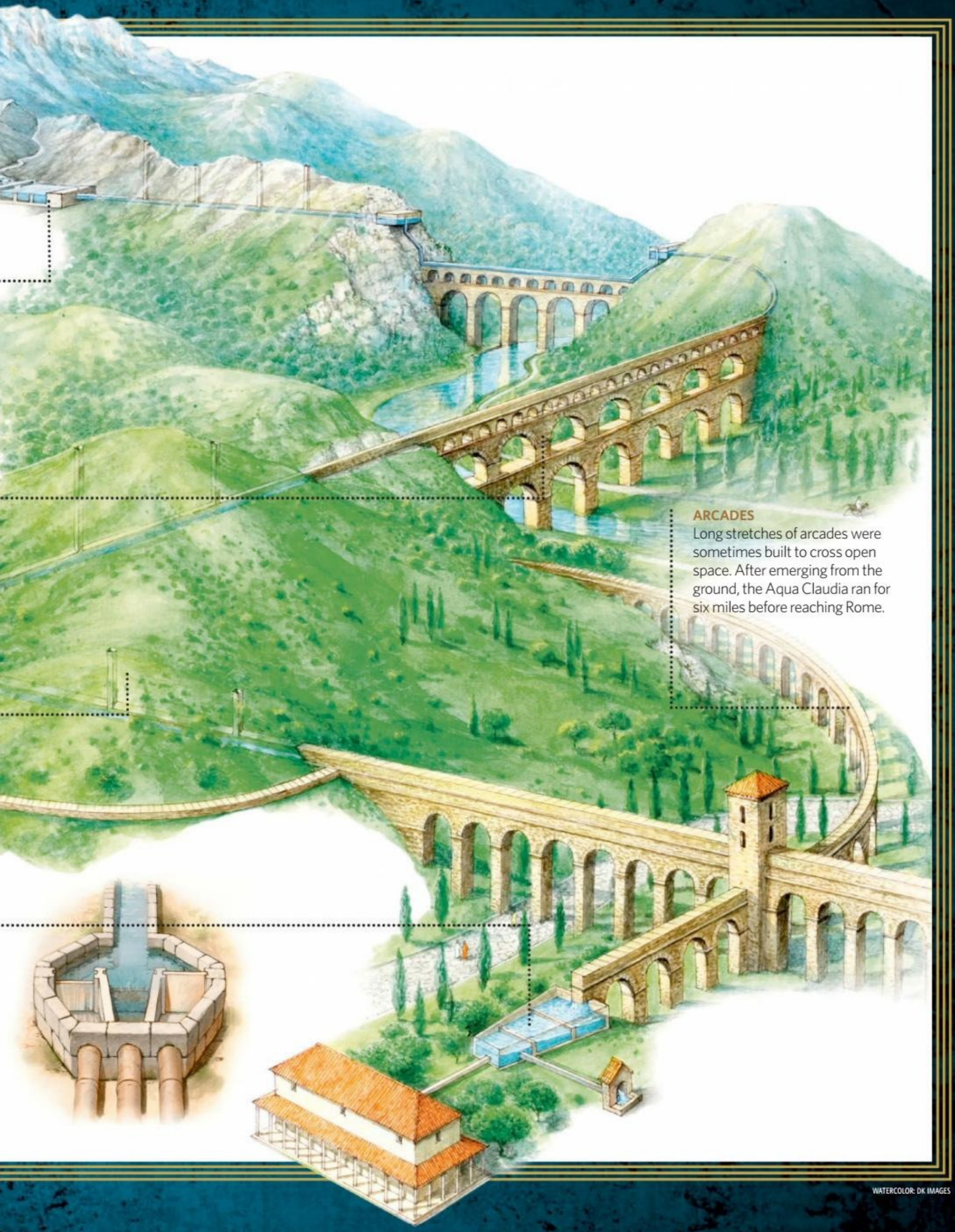
One option for crossing a river was to build an arched bridge, usually with two tiers of arches. The channel, or *specus*, flowed along the top and was usually covered.

CHANNELS AND SHAFTS

The underground channels were built using shafts *(putei)* placed at regular intervals. On completion of the channels, they were used as access points for maintenance.

CASTELLUM AQUAE

When the water reached the city, it was collected in a tank, the *castellum aquae*. Often exquisitely decorated, this tank fed different channels that distributed water through the city.



ARCADES
Long stretches of arcades were sometimes built to cross open space. After emerging from the ground, the Aqua Claudia ran for six miles before reaching Rome.

WATERCOLOR: DK IMAGES

أراك قد أبرزت لي رأسك قبل أن تبرز قرطاسك وولتني قذالك ولم تقل ذا لك ولست
ممن يبيع نقدا بدين ولا يطلب أثرا بعد عين فإن أنت رضخت بالعين حجمت في

A doctor treats wounds in this 12th-century illustration from the *Maqamat*, a collection of Islamic tales. **Opposite:** An 18th-century copper still from Morocco, essential equipment in a Muslim physician's medical kit. Musée du Quai Branly, Paris

MINIATURE: BRIDGEMAN/ACI
STILL: QUAI BRANLY/RMN-GRAND PALAIS

الا خلد عين وان كنت ترا الشح أولى وخرت الفلس في النفس أحلى
واغرب عينا والا قفال الفتى والذي حرم صوغ المين كما حرم صيد

MUSLIM MEDICINE

The growth of Islam in the seventh century sparked a golden age of scientific discovery. Building on the wisdom of ancient civilizations, Muslim doctors pushed the boundaries of medical science into bold new places.

VÍCTOR PALLEJÀ DE BUSTINZA

Golden Age of Knowledge

SEVENTH CENTURY
After the Prophet Muhammad's death in 632, Islam expands beyond Arabia to Persia, Palestine, Syria, Lebanon, Iraq, and North Africa.

EIGHTH CENTURY
Caliph Harun al-Rashid founds the House of Wisdom in Baghdad. The city's scholars translate many ancient manuscripts and medical texts.

NINTH CENTURY
Al-Razi (Rhazes) is born in Persia. Physician, chemist, and teacher, he writes many important medical works later translated into Latin and Greek.

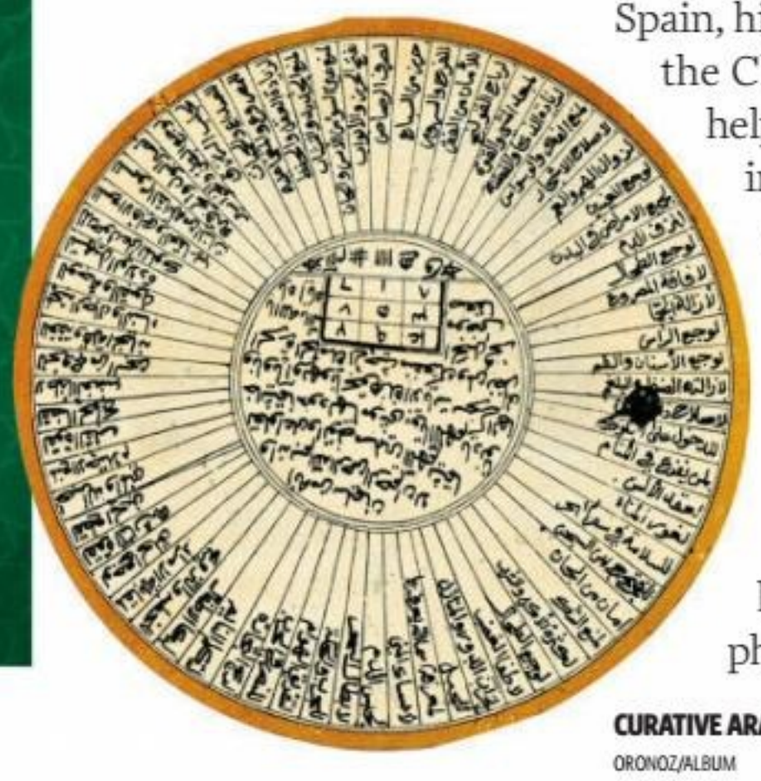
10TH CENTURY
Surgeon Al-Zahrawi (Abulcasis) is born in Córdoba. Inventor of many medical instruments, he writes the first illustrated surgical book.

11TH CENTURY
In Baghdad, Ibn Sina (Avicenna) writes the *Canon of Medicine,* a five-volume work encompassing all known medical knowledge of the time.

12TH CENTURY
Ibn Rushd (Averroës) is born. Philosopher, astronomer, and physician, he writes a medical encyclopedia known as the *Colliget* in Latin.

14TH CENTURY
Ottoman Serefeddin Sabuncuoglu is born. A surgeon, he creates illustrated works showing the advanced procedures of Muslim medicine.

FAITH IN MEDICINE
Located in modern-day Turkey, the 13th-century Divrigi Hospital (above) was built alongside a mosque, and the two are a UNESCO World Heritage site.
LUCA MOZZATI/AGE FOTOSTOCK

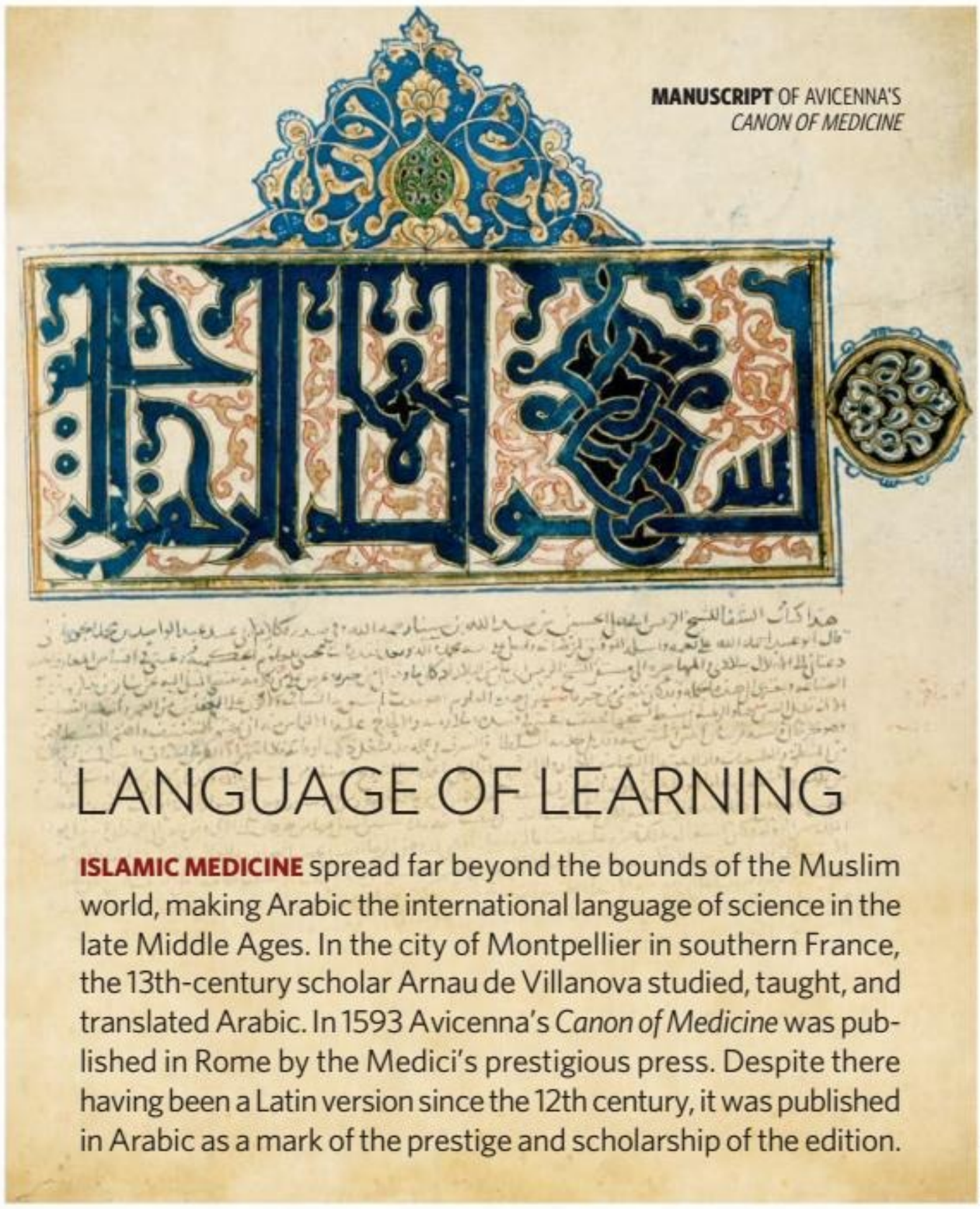


CURATIVE ARABIC TALISMAN ORIENTAL INSTITUTE, NAPLES
ORONOZ/ALBUM

Sancho I, ruler of the kingdom of Léon in the north of modern-day Spain, was overthrown by rebel nobles in A.D. 958. Their motive, even by the turbulent politics of the day, was an unusual one: The king was unable to fulfil his regal duties with dignity, the rebels said, because he was too fat.

The relatives of Sancho acted quickly to restore his power. In an example of the lively interchange of ideas and loyalties in multicultural, medieval Spain, his grandmother, Queen Toda Aznar of the Christian kingdom of Navarra, sought help from another Spanish kingdom deep in Spain's south: the Muslim Caliphate of Córdoba. Queen Toda approached Córdoba's great ruler, the caliph 'Abd al-Rahman III, with two bold requests: help with a cure for her grandson's morbid obesity and military support to regain the throne.

The caliph put the first matter in the hands of Hisdai ibn Shaprut, his Jewish physician, who put the Leonese king on a



MANUSCRIPT OF AVICENNA'S *CANON OF MEDICINE*

LANGUAGE OF LEARNING

ISLAMIC MEDICINE spread far beyond the bounds of the Muslim world, making Arabic the international language of science in the late Middle Ages. In the city of Montpellier in southern France, the 13th-century scholar Arnau de Villanova studied, taught, and translated Arabic. In 1593 Avicenna's *Canon of Medicine* was published in Rome by the Medici's prestigious press. Despite there having been a Latin version since the 12th century, it was published in Arabic as a mark of the prestige and scholarship of the edition.

AKG/ALBUM

strict diet. Once Sancho slimmed down enough to be able to ride properly, he reclaimed his lost crown with the help of Muslim troops.

Physicians from Islamic countries during the late Middle Ages enjoyed great respect. Their reputation was well deserved, for the study and practice of medicine was then led by Muslim societies across their immense territory, which extended from modern-day southern Spain to Iran.

In the Beginning

Before the message of the Prophet Muhammad spread beyond the Arabian Peninsula, local medical attitudes were based on the words of the founder of Islam: "Make use of medical treatment, for Allah has not made a disease without appointing a remedy for it, with the exception of one disease: old age."

Early Muslim medicine drew on traditional practices from the region, some dating back to ancient Mesopotamia and ancient Babylon in the third millennium B.C. Traditional natural remedies, such as the use of honey or olive oil, and the use of suction cups *(hijama)* are still used today in many Islamic countries and around the world to treat ailments.

An indicator of health in this early Muslim society was one's dreams. Muhammad ibn Sirin, working in what is today Iraq, composed a great Arabic work, *Tabir al-Anam,* on dream interpretation in the eighth century. Its main source was *Oneirocritica—The Interpretation of Dreams*—written by the Greek author Artemidorus Daldianus some 500 years earlier. In addition to this early form of psychological therapy, rituals and talismans appeared in medical treatises. Islam did not reject these practices outright and "benign" magic was lawful, provided certain rules were followed.

In 622 the Prophet Muhammad departed from Mecca for Medina, and that year marks the beginning of the Islamic calendar. Just two centuries later, his successors, the caliphs, had extended their domains eastward toward Iran and India, and westward along the coast of North Africa and Europe. Although Arabian medicine

MAKERS OF MEDICINE

Muslim doctors were also pharmacists who produced their own medicines. Below, a 14th-century pharmaceutical container made in Damascus.

AKG/ALBUM

HEALING WITH ANIMALS

Islamic medicine had some roots in folk remedies that used animals' organs. Many manuscripts drew on these traditions, such as *Book on the Usefulness of Animals* by the 14th-century Syrian scholar Ibn al-Durayhim (see excerpts, right). Avicenna also wrote of the use of birds' wings, pigeon's blood, and donkey's liver as cures for certain maladies.

spread with Islam, its rulers were also keen to absorb the wisdom of other cultures, especially the Greco-Roman culture preserved in Egypt and the Near East. They sought to lay claim to the knowledge of philosophy, technology, and medicine, sometimes referred to as the "science of the ancients."

The Old Wisdom

As Islam expanded, the cities where Greek science had flourished came under Muslim control. These included Alexandria in Egypt and Edessa in modern-day Turkey. On the eastern bounds of Islam, Gondeshapur in Persia had become a center for Greek medicine and learning after scholars migrated there in A.D. 529, following the decision of the emperor Justinian to close the Academy in Athens. The new Muslim elites who occupied Gondeshapur were determined to revive, absorb, and spread what they saw as this lost learning. They also wanted to build on it.

INSTRUMENTS OF CHANGE

Surgery underwent considerable development in the Islamic world. Below, instruments depicted on a copy of Abulcasis's 10th-century work *The Method of Medicine*

AKG/ALBUM

Greek science became the basis for the development of Arabic medicine. The early theoretical basis of Islamic medicine drew on the Greek and Roman theory of humors, attributed to Hippocrates, writing in the fourth century B.C. The system of humors divides human fluids into four basic types: blood, phlegm, yellow bile, and black bile. The balance between each one determines whether an individual is sick or well. Patients became depressed, for example, because of a surfeit of black bile. The combination, in Greek, of the words for "black," *melanin,* and "bile," *khole,* is the root of the word "melancholy." Sanguine, phlegmatic, or choleric temperaments likewise suffered from an imbalance in the other humors. Health could be restored by rebalancing them with diets and purges, and explains the importance that Islamic medicine placed on hygiene and diet.

Gifted translators gave the Muslims access to these Greek and Latin texts. Scholars such as Yahya ibn Masawayh (known in the

1 Snake

"The viper is skinned and dried [to become] a hair-removal paste. If its ashes are mixed with vinegar and smeared on erysipelas [a skin infection] they cure it, and hemorrhoids too."

2 Hare

"Hare rennet drunk with pure wine is good for fever. Mix it with marshmallow and oil and rub it on an arrowhead to remove it . . . When given to a woman, she becomes pregnant."

3 Camel

"He who drinks its milk and urine in the springtime will be cured of liver pain and tumors of the liver and navel. It also softens hardness of the spleen when drunk with mandrake milk and cures all ulcers washed with it."

4 Heron

"Split a heron's testicles, sprinkle salt over them, dry them and crush them. Then mix them with sea foam, lizard excrement and sugar in equal parts. It removes leucoma when used as eye drops."

5 Horse

"Horse bile mixed with myrrh, lavender, resin, and incense . . . benefits those who urinate blood. When horse sweat is mixed with mare's milk and given to a pregnant woman, she will immediately miscarry."

Book on the Usefulness of Animals, Ibn al-Durayhim

West as Ioannis Mesue) and his student, Hunayn ibn Ishaq (known as Johannitius in Latin) produced over 50 translations alone. Both men were Syrian Nestorians, a denomination of Christianity considered heretical in the eastern Roman Empire, and had been forced to flee to Persia.

Their ability to speak several languages—including Greek and Syriac (a Semitic language close to Arabic)—was in high demand. In other cities across the new Islamic world, Muslim patrons hired these men. The caliph Al-Ma'mun of the Abbasid dynasty in Baghdad put Hunayn ibn Ishaq in charge of the translators at the city's famous Bayt al-Hikma, or House of Wisdom.

By the 900s, drawing from a growing body of Greek, Persian, and Sanskrit works translated into Arabic, Islamic medicine quickly became the most sophisticated in the world. Christians, Jews, Hindus, and scholars from many other traditions, looked to Arabic as a language of science. Doctors of different faiths worked together, debating and studying with Arabic as the common tongue.

The Abbasid Caliphate of Baghdad enjoyed a long period of intellectual experimentation that lasted throughout the 10th and 11th centuries. Among its many glittering figures was Al-Razi, known in Latin as Rhazes, a Persian pharmacologist and physician who ran the hospital in Baghdad. But the brightest star in the Baghdad firmament was undoubtedly the extraordinary Ibn Sina, known in the West as Avicenna. Already a doctor at age 18, his great volume *Al-Qanun fi al-Tibb—Canon of Medicine*—became one of the most famous medical works of all time, and an extraordinary exercise in the bringing together

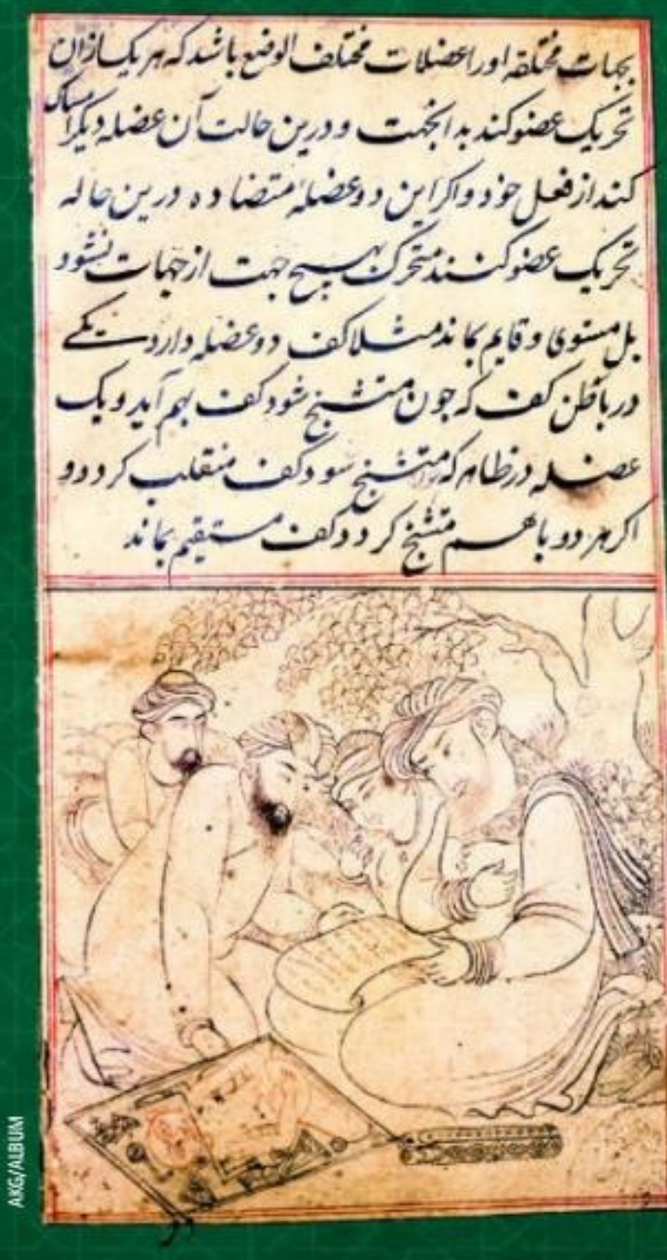
ABOVE: 1 SNAKE MINIATURE, 14TH CENTURY EDITION, FROM *MARVELS OF CREATION*, BY AL-QAZWINI. AKG/ALBUM **2 HARES** MINIATURE, 14TH-CENTURY, *PANCHATANTRA*, COLLECTION OF INDIAN FABLES. AKG/ALBUM **3 CAMELS** MINIATURE, 14TH-CENTURY, *THE REVELATION OF SECRETS*, BY IBN AL-GHANIM MAQDISI. AKG/ALBUM **4 HERONS** AND **5 HORSE** MINIATURES, 14TH-CENTURY, *BOOK ON THE USEFULNESS OF ANIMALS*, BY IBN AL-DURAYHIM, MONASTERY OF SAN LORENZO, EL ESCORIAL, SPAIN. ORONOZ/ALBUM

> By the 900s, drawing from a growing body of Greek, Persian, and Sanskrit works, Islamic medicine was the most sophisticated in the world.

MUSLIM MEDICAL SCHOOLS

THE MOST IMPORTANT institution for imparting knowledge about medicine and other disciplines was the madrassa, a school built in, or alongside, a mosque. Many madrassas became highly specialized academies, often with close links to hospitals. Notable hospitals were in Cairo, Harran (in modern-day Turkey), and Baghdad, where students would often visit patients to observe their treatment at the hands of qualified doctors, in much the same way as medical interns and residents do today. A basic part of theoretical training was learning summaries in verse form, such as Avicenna's *Poem of Medicine*. There were also question-and-answer drills on medical compendia, such as the *Paradise of Wisdom,* compiled by Ali ibn Rabban al-Tabari around 850.

A DOCTOR INSTRUCTS STUDENTS IN THIS 17TH-CENTURY MINIATURE.

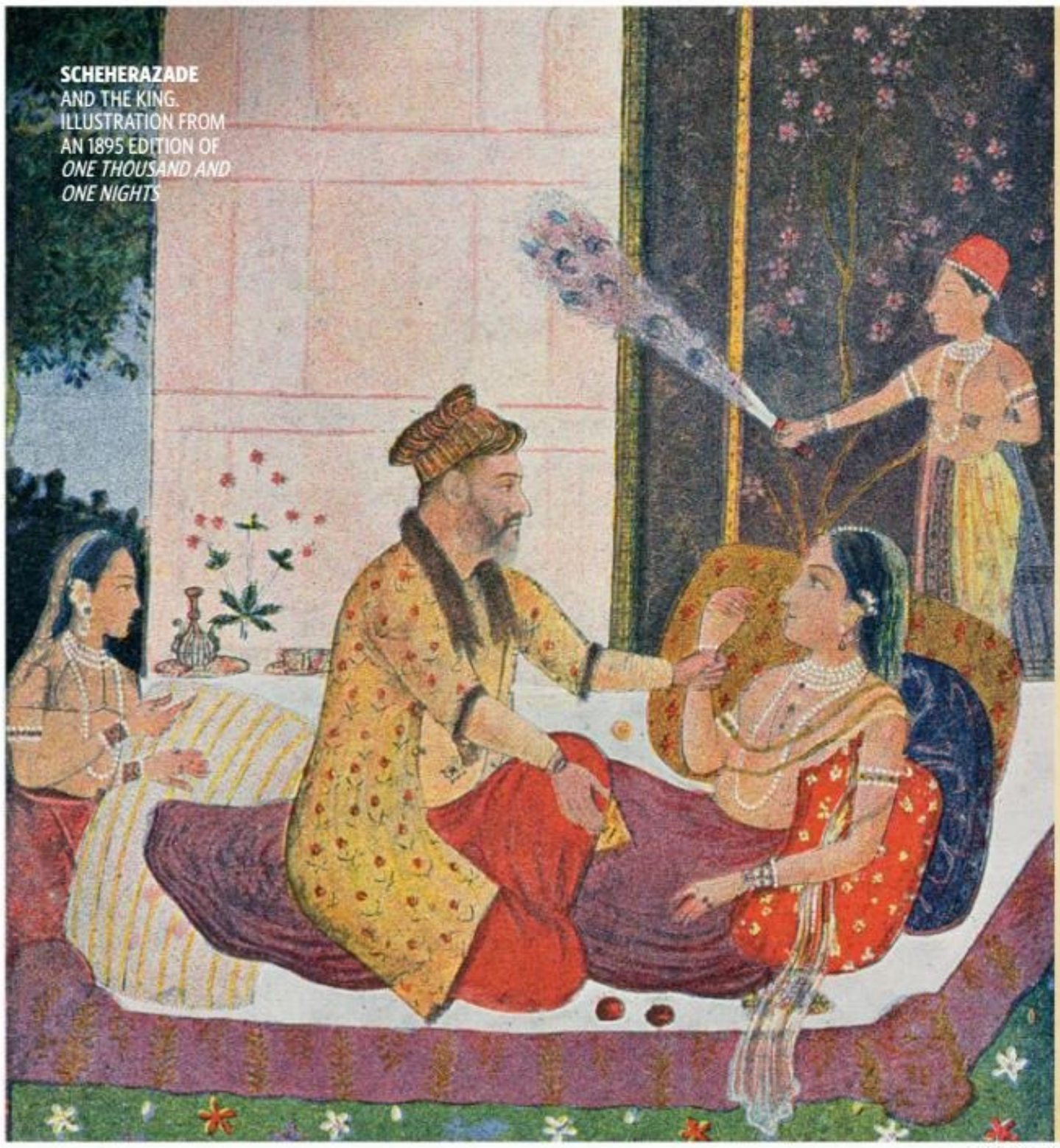


AKG/ALBUM

HOUSE CALLS

A doctor visits a patient in this vibrantly colorful miniature (above) from a 14th-century Persian copy of the *Maqamat,* held in the collection of the Austrian National Library in Vienna.

BRIDGEMAN/ACI



SCHEHERAZADE AND THE KING. ILLUSTRATION FROM AN 1895 EDITION OF *ONE THOUSAND AND ONE NIGHTS*

BRIDGEMAN/ACI

SCANDALOUS SCIENCE OF SEXUALITY

SEXUAL INTERCOURSE is an important part of marriage in the Muslim faith, and medical works on the subject reflect that belief. A genre of medieval text known as *kitab al-bah*—books on the libido—explored both reproduction and eroticism as well as embryology, obstetrics, and pediatrics. Issues of sexual health were also addressed, with attention given to sexual disorders, impotence, and loss of desire. Authors also covered aphrodisiacs and substances that decreased libido. These treatises fascinated the British traveler and scholar Richard F. Burton, who collected copies for study in Britain. Burton also translated the great Mideastern classic *One Thousand and One Nights,* a work whose sexual frankness delighted lovers of Arabic culture—but scandalized Victorian England.

of different disciplines and cultures. Avicenna's attempt to harmonize the medical practices of the Greek thinker Galen with the philosophy of Aristotle reveals the multiple nature of the debt owed to Muslim scholarship, which did not merely revive Greek authors, but stimulated new patterns of thought for the centuries ahead. The reconciling of practical science, thought, and religion ensured *Canon* was studied by European medics until the 18th century.

Scholarly Works in Spain

At the westernmost limits of the Islamic world, Muslim Spain was also undergoing a period of scholarly development. By the 10th century, Córdoba was the biggest, most cultured city in Europe, described by some as "the Ornament of the World." The city was also a great center of study and exploration.

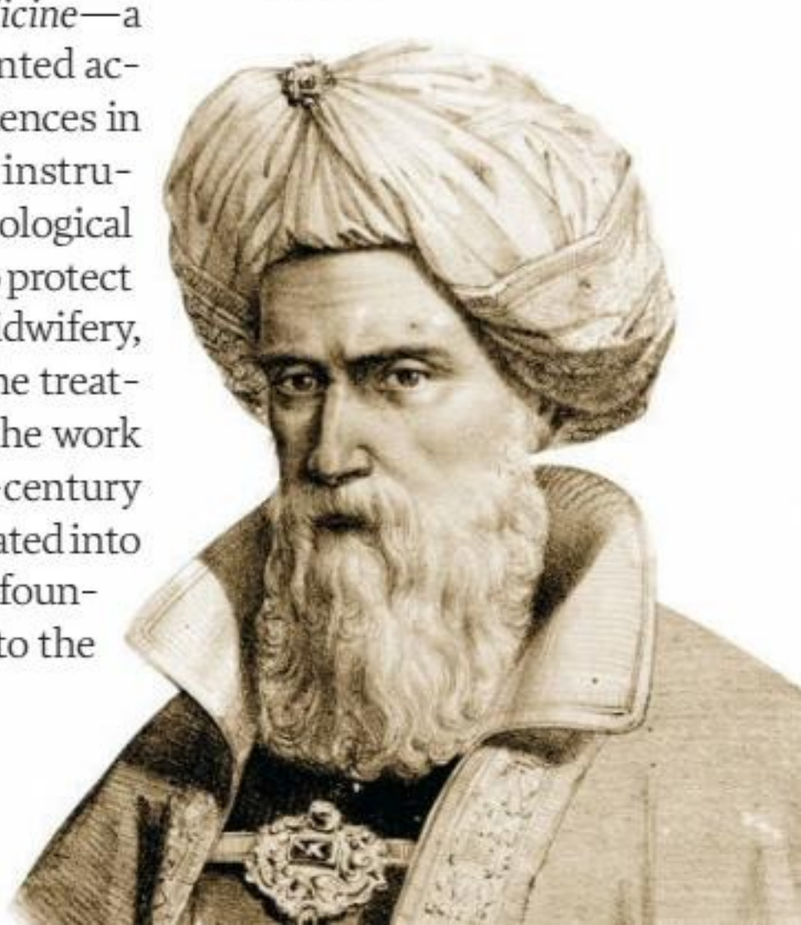
Essential volumes in any scientist's library were preserved in Córdoba. For instance, *De materia medica—On Medical Material*—the classic treatise of Dioscorides, written at the time of the emperor Nero in the first century A.D., was translated into Arabic in Córdoba, on the orders of Caliph 'Abd al-Rahman III. This practical study of the medicinal qualities of plants and herbs, including a study of cannabis and peppermint, was now accessible to more scholars than ever before.

One of the caliph's brilliant courtiers, the surgeon Al-Zahrawi, also known as Abulcasis, compiled the *Al-Tasrif—The Method of Medicine*—a 30-volume encyclopedia that documented accounts of his and his colleagues' experiences in treating the sick and injured: surgical instruments, operating techniques, pharmacological methods to prepare tablets and drugs to protect the heart, surgical procedures used in midwifery, cauterizing and healing wounds, and the treatment of headaches. It also drew upon the work of previous scholars, such as seventh-century Byzantine medic Paul of Aegina. Translated into Latin in the 12th century, *Method* was a foundational medical text in Europe well into the Renaissance.

AVICENNA THE WISE

A romanticized engraving of the 11th-century scholar Avicenna, who provided a strong theoretical framework for medicine

BRIDGEMAN/ACI



SURGEON AND SCHOLAR

Serefeddin Sabuncuoglu was a 15th-century surgeon who worked at the hospital in Amasya (in modern-day Turkey). In 1466 he presented the Ottoman sultan Mehmed II with the medical atlas *Imperial Surgery*, which contains 140 miniatures depicting procedures such as incisions, setting fractures, and cauterizations.

The 12th century saw the emergence of the work of the outstanding Ibn Rushd—known in Christendom as Averroës—and the Jewish physician and thinker Moses Maimonides. Both men reflect the strong ties between philosophy and medicine during the Islamic golden age. Averroës, author of some of the greatest commentaries of the Middle Ages on Aristotle and Plato, was also personal physician to the caliphs. Moses Maimonides became the personal doctor of Saladin, the Muslim champion against the Crusaders. Among Maimonides's many works was his *Moreh Nevukhim*, or *Guide for the Perplexed*, a masterwork attempting to reconcile religious belief with philosophical inquiry.

Under the Knife

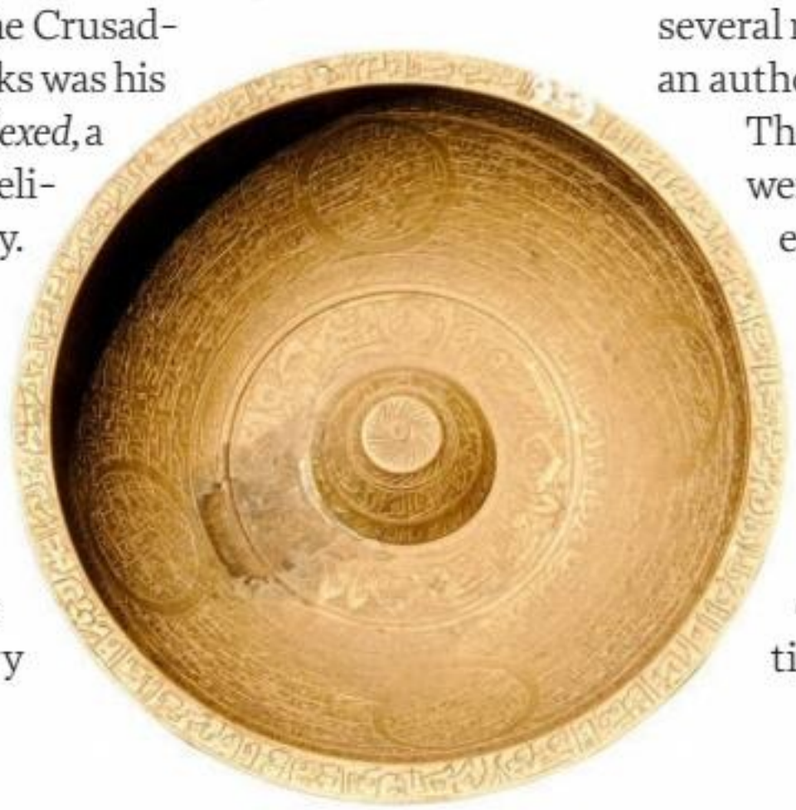
While writing about medicine predominated in Islamic culture, the practice of medicine made great progress as well. New treatments were developed for specific ailments, including a revolutionary treatment to treat cataracts. The 10th-century physician Al-Mawsili developed a hollow syringe to remove cataracts via suction; the technique has improved with time, but the basic premise of the procedure remains sound to this day. Ibn Isa, a 10th-century scholar from Iraq, wrote perhaps what was the most complete book of eye diseases, the *Notebook of the Oculist,* detailing 130 conditions. The book was translated into Latin in 1497 followed by several more languages, allowing it to serve as an authoritative work for centuries.

The greatest advances in surgery of the era were detailed by Al-Zahrawi who invented a wide range of instruments: forceps, pincers, scalpels, catheters, cauteries, lancets, and specula, all carefully illustrated in his writings. His recommendations on pain-reduction techniques, such as the use of very cold sponges, were followed by Western medics for centuries. One of his greatest innovations was the use of catgut for stitching

FAITH HEALERS

Pilgrims to Mecca returned home with this copper bowl (below), thought to bestow healing properties to water drunk from it. Faithful Muslims put their trust in both Allah and the doctor's skill.

AKG/ALBUM



Cutting Edge

For generations, surgical practice in both the Islamic world and in Christian Europe followed the precepts of the 10th-century Muslim surgeon and scholar Abulcasis. The lack of effective anesthetic and the very high risk of infection limited surgery to the treatment of wounds and traumas, removal of abscesses and growths, extraction of kidney stones, and treatment of cataracts. Cauterization—the procedure depicted in Sabuncuoglu's work—was used to destroy diseased tissue.

Sabuncuoglu's Operations

Illustrations of a number of operations are provided in Sabuncuoglu's book. Pictured here: **1** Cauterization to treat a toothache; **2** Treatment of hemorrhoids; **3** Draining fluid from the abdominal cavity of a patient suffering from dropsy; **4** Drainage of fluid that has built up in a patient's head; **5** Cauterization to treat migraine headaches

up patients after an operation, a practice that is still in use today.

Healing and Teaching

One of the most lasting contributions of Islam was the hospital. Funded by donations called *waqf*, public hospitals treated the sick, provided a place to convalesce and recover, housed the mentally ill, and provided shelter to the aged and infirm. Jewish and Christian doctors, in addition to Muslim physicians, worked in these institutions. Hospitals allowed the poorest to benefit from the knowledge of outstanding doctors: Beggars in Baghdad might be operated on by Rhazes, the great surgeon of the city hospital.

As was increasingly the case in Christian Europe, great cities in the Muslim world competed to house such institutions, hoping to attract the best teachers and books. The Ahmad ibn Tulun Hospital, one of the first of its kind, was built in Cairo between 872 and 874. Perhaps the best known hospital of the Islamic world, Al-Mansuri Hospital, was also built in Cairo, by the sultan Qalawun in 1285. Four wards, each one specializing in different pathologies, were reputed to house thousands of patients. The buildings surrounded a courtyard cooled by fountains.

Study and education were also important components of Muslim medical culture, and hospitals affiliated with universities educated the next generation of physicians. Founded in the 12th century, the Syrian Al-Nuri Hospital in Damascus was one of the leading medical schools of its time, complete with an impressive library donated by the ruler Nur al-Din ibn Zangi. Much like medical students of today, scholars learned from mentoring by experienced doctors. Hospitals featured large lecture halls where talks and readings of classic manuscripts would be held.

The teachings at these universities provided the foundation for the great medical advances to come, which all stand on the shoulders of the extraordinary discoveries and practices from Islam's golden age. ■

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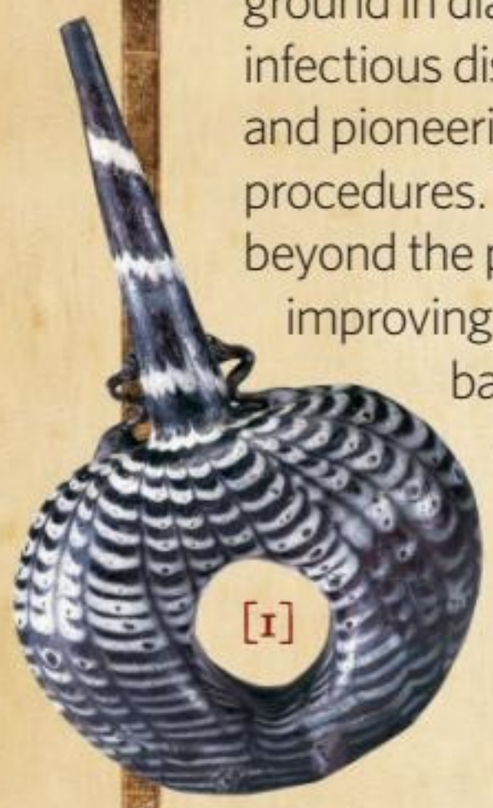
MANUAL FOR SPECIALISTS

A copy of *Imperial Surgery* (above) resides in the Bibliothèque Nationale in Paris, while two copies of the 15th-century work are in Istanbul, Turkey.

PHOTOS: BRIDGEMAN/ACI; AKG/ALBUM

THE ART OF MEDICINE

Medieval Islamic doctors broke new ground in diagnosing and treating infectious diseases such as smallpox, and pioneering lifesaving surgical procedures. Their interest also extended beyond the physical, with a view to improving general wellness, using baths, perfumes, and even cosmetics.



[1]

GLASS PERFUME DISPENSER FROM EGYPT, 12TH TO 13TH CENTURIES. SAINT LOUIS ART MUSEUM

[3]

MANDRAKE IN A 14TH-CENTURY MANUSCRIPT OF *DE MATERIA MEDICA* BY DIOSCORIDES, BIBLIOTHÈQUE DE L'ARSENAL, PARIS

[1] Dermatology

Ibn Zuhr (12th century) wrote a treatise on skin care that included recipes for ointments and salves for skin complaints, dental powders, eyedrops, and products to strengthen hair and nails.

[2] Smallpox

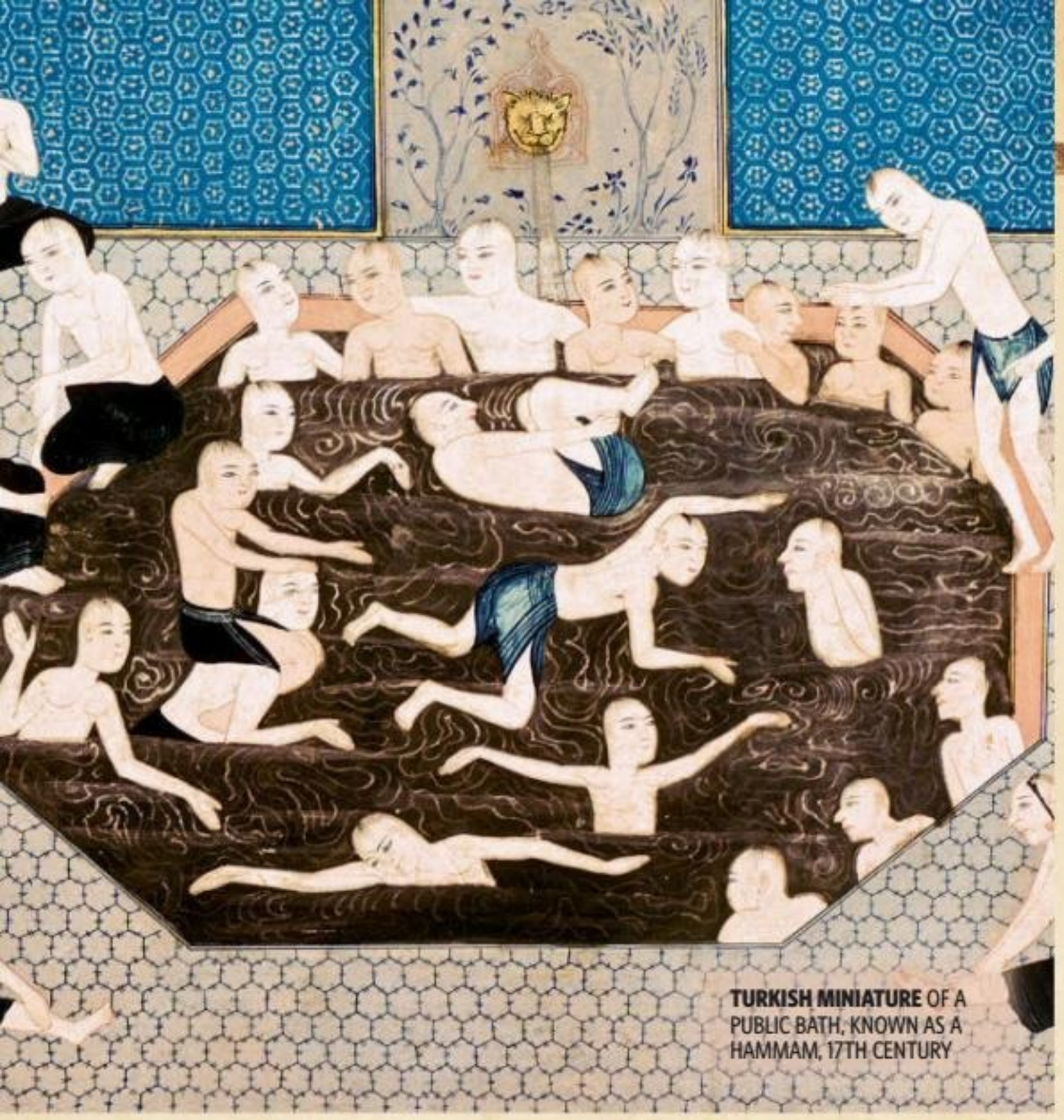
Al-Razi (10th century) provides the first description of measles and smallpox and how to treat them. This includes rubbing the pustules with sandalwood, camphor, vinegar, and rose water.

[3] Anesthesia

A mixture of opium, mandrake, henbane, ivy, and spurge would be prepared and then absorbed into a sponge, which was then applied to the patient's nose until he or she fell into a deep sleep.

MEDICINE FOR A SMALLPOX PATIENT (RIGHT). AVICENNA'S *CANON OF MEDICINE*. 17TH-CENTURY MINIATURE

[2]



TURKISH MINIATURE OF A PUBLIC BATH, KNOWN AS A HAMMAM, 17TH CENTURY

[4] Baths

According to Al -Ghazali (11th century), a bath "opens the pores and extracts superfluous humors. Spas dissolve flatulence and make the urine flow from the body more easily."

[5] Anatomy

Ibn al-Nafis (13th century) was the first scholar in history to describe pulmonary circulation: "Blood flows from the heart to the lungs and returns to the heart through the venous artery."

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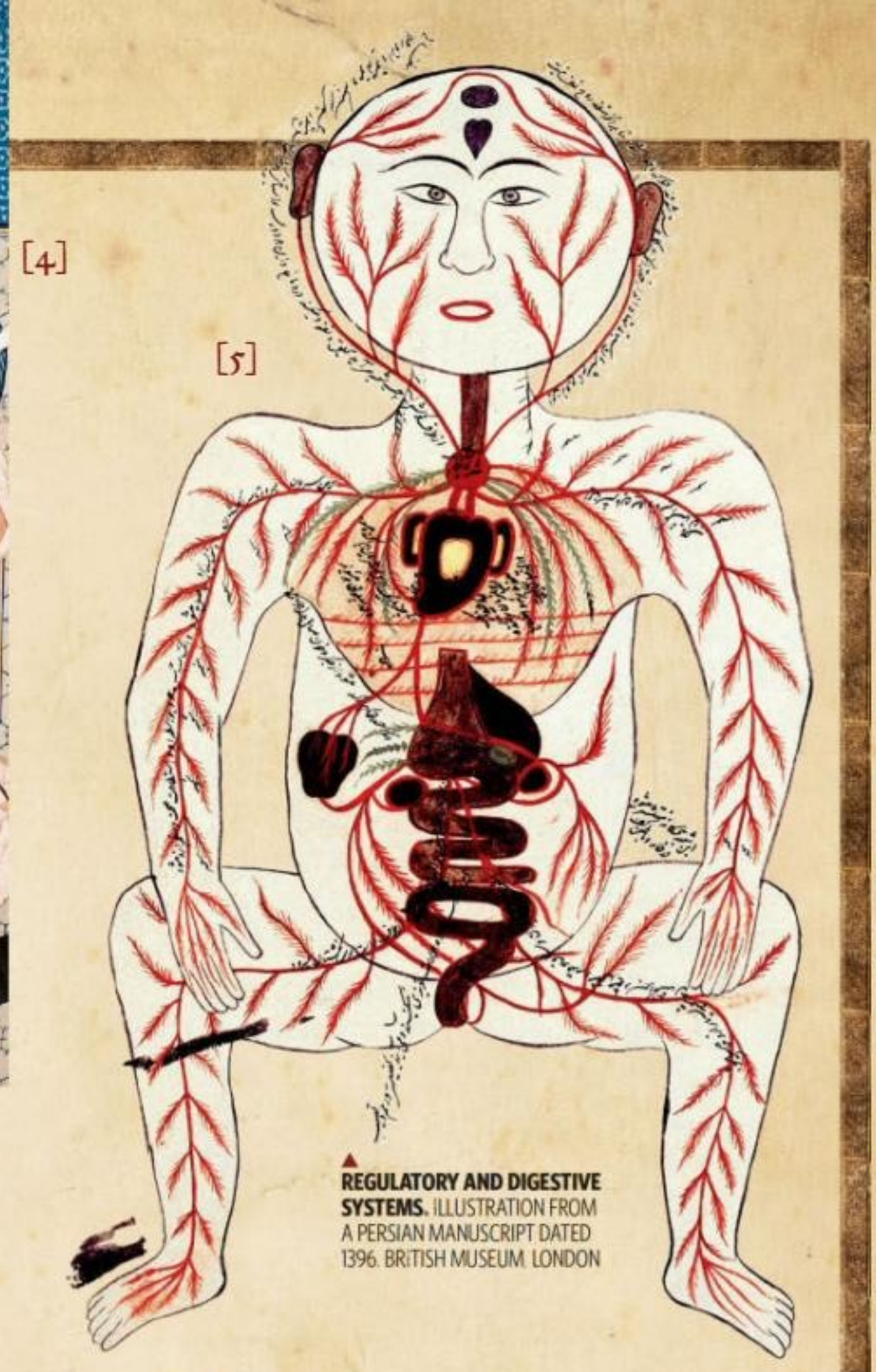


REGULATORY AND DIGESTIVE SYSTEMS. ILLUSTRATION FROM A PERSIAN MANUSCRIPT DATED 1396. BRITISH MUSEUM, LONDON

[6] Distillation

Stills, a major contribution to pharmacology, were perfected by Islamic scientists. Their use allowed the creation of key medicinal substances, such as alcohol, used in preparing medicines.

[6]

DISTILLATION AT THE STILL, FROM A MUSLIM ALCHEMICAL TREATISE

FROM LEFT TO RIGHT, TOP TO BOTTOM: BRIDGEMAN/ACI; AKG/ALBUM; BRIDGEMAN/ACI; ORONOZ/ALBUM; DEA/ALBUM; BPK/SCALA, FLORENCE

John Quincy Adams, Andrew Jackson, and the "Corrupt Bargain"

THE ELECTION OF 1824

Nearing the end of his second term, President James Monroe gave no sign as to whom he wished would succeed him in office. His non-decision led to a bitterly fought contest and the birth of modern politics in the United States.

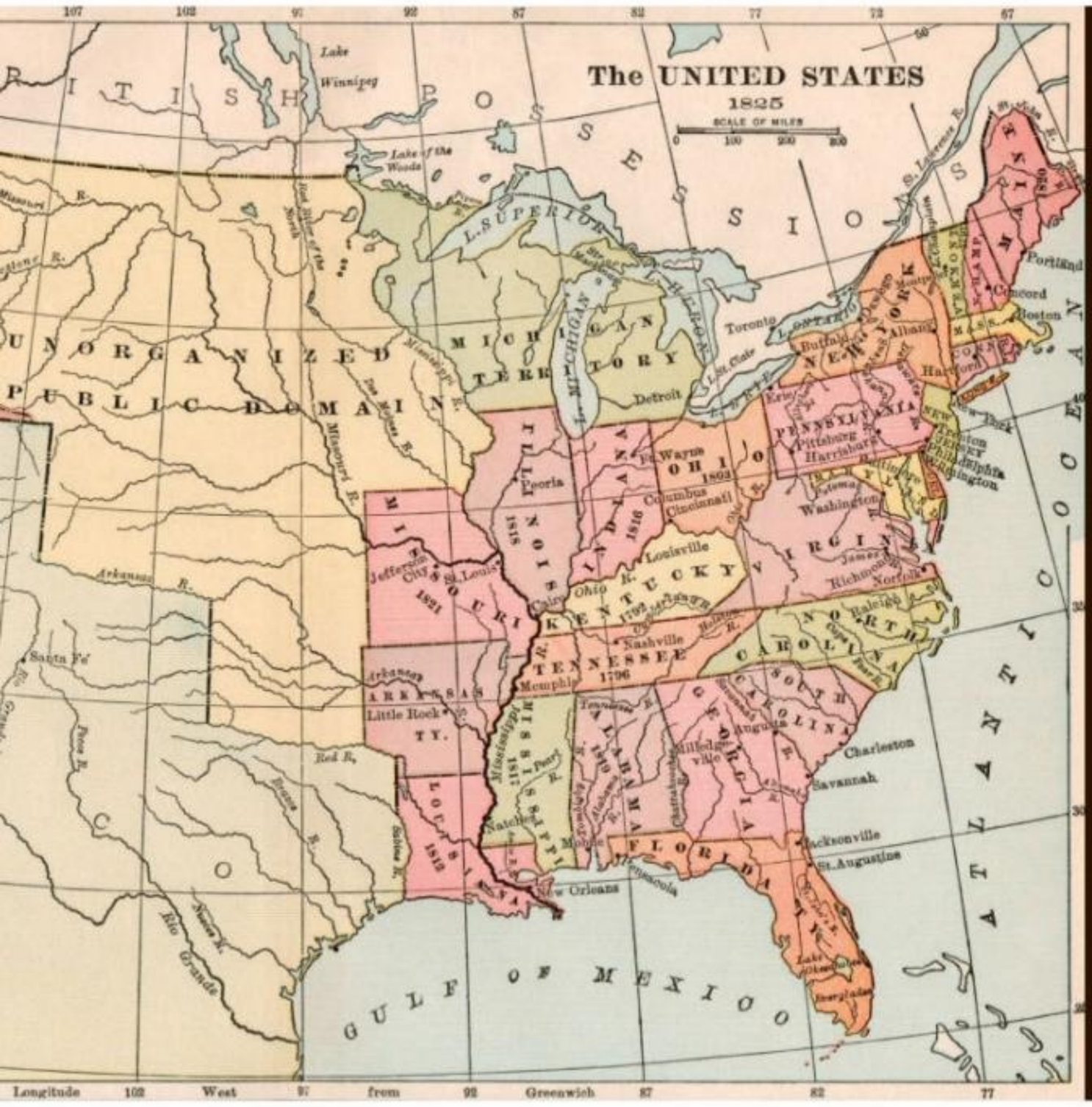
JAMES TRAUB

Before the election of 1824, the United States was at the tail end of the so-called Era of Good Feelings, a time when political partisanship was low and one party, the Democratic-Republicans, dominated U.S. national politics. The election of 1824 ended that era. Clashing interests on protectionism and trade, as well as sharply divided views on the role of government and America's place in the larger world, created lasting schisms. By declining to give the nod to a designated successor, President James Monroe allowed a wide-open campaign to develop. Four men—John Quincy Adams, Henry Clay, William Crawford, and Andrew Jackson—sought the presidency. The ensuing battles would transform politics, leading to a new democratic culture as well as to the Democratic Party.

THE CONTENDERS

The candidates for president in the election of 1824 were (clockwise from lower left) William Crawford, Henry Clay, John Quincy Adams , and Andrew Jackson. After Clay was eliminated from the race, no one had received an outright majority of electoral college votes, leaving the final decision to the House of Representatives.

CLOCKWISE FROM LOWER LEFT: REDWOOD LIBRARY AND ATHENAEUM, NEWPORT, RHODE ISLAND; GRANGER COLLECTION/CORDON PRESS; ART RESOURCE/SCALA, FLORENCE; NATIONAL PORTRAIT GALLERY, SMITHSONIAN INSTITUTION



AN EVER CHANGING NATION

EIGHTEENTH-CENTURY AMERICANS would have hardly recognized the United States of 1824. Since 1789, the number of states had nearly doubled, growing to 24. The population roughly tripled from about 3.9 million in 1789 to 9.6 million in 1820. Despite the cessation of the international slave trade in 1807, the number of enslaved African Americans continued to grow, rising from just under 700,000 in 1780 to 1.5 million in 1820. Native American nations continued to hold their lands, but by 1824, through a series of treaties often negotiated by John Quincy Adams in conjunction with military campaigns spearheaded by Andrew Jackson, the U.S. was laying claim to their territories, expanding the nation's holdings from the Atlantic to the Pacific Northwest.

EAST VERSUS WEST

According to the 1820 census, most Americans lived in the East. New York was the most populous state, with 1.3 million total residents. Illinois was the least populous; in 1820, slightly more than 55,000 people lived there.

NORTH WIND PICTURE/AKG/ALBUM

19th-Century Politics

The America of 1824 was recognizably a republic, in the sense that ultimate sovereignty lay with the people, but much less so a democracy, in which the people engage directly in the political process. Of the twenty-four states, six left the choice of president to the legislature, which chose the state's presidential electors. In the others, legislators set the terms of the statewide or district-by-district ballot that determined the outcome.

A presidential race was not a popularity contest, as it soon would become; a candidate succeeded by appealing to other professional politicians as much as to ordinary citizens. And the appeal itself remained oblique to the point of coyness. A presidential candidate of 1824 could no more afford to be seen openly campaigning than a candidate for the papacy can today.

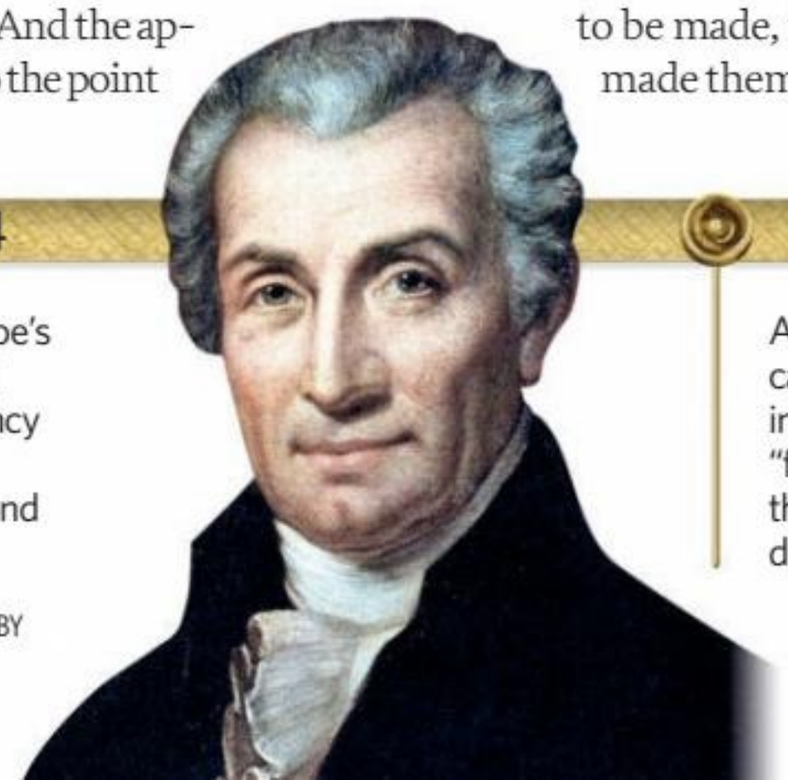
Instead, candidates had proxies and campaign managers, politely known as "friends," who planted articles in the newspapers advancing their man and undermining rivals. They engaged in a ceaseless circuit of private talks with legislators and local power brokers. Candidates largely sat in one place and received reports from their friends, in person or by letter.

Public addresses, either by candidates or their surrogates, were rare. If there were deals to be made, it was the friends who made them, allowing the aspirant

PATH TO THE PRESIDENCY

JANUARY 1824

Near the end of James Monroe's term, the leading presidential candidates include John Quincy Adams, Henry Clay, William Crawford, Andrew Jackson, and John Calhoun.



PRESIDENT JAMES MONROE, PORTRAIT BY REMBRANDT PEALE, CIRCA 1820

GRANGER COLLECTION/CORDON PRESS

MAY 1824

Averse to public campaigning, candidates privately garner the influence of as many political "friends" as possible. Crawford is the favorite, while Calhoun has dropped out of the race.

himself to stand loftily above the fray. And as the fortunes of their candidate waxed and waned, these proxies would quietly approach one another proposing to combine forces, with one serving as the designated vice presidential candidate of another. But precisely because the race was so fluid, these offers almost always came to naught.

And yet even as the candidates comported themselves in public according to a code of ethics inherited from the Founding Fathers, the nation's real political culture had changed radically. Looking back no further than 1812, which was the last time there had been a serious contest for the presidency, the number of states had increased from eighteen to twenty-four; the population of the country had almost doubled, to about eleven million; and the West, where five of the six new states were located, had gained vastly in power.

The 1824 election would thus be a strange hybrid: structurally, or organizationally, it bore the marks of an old-fashioned contest among political elites, but the traditional institutions were now subject to influences from new men and new places. And the collapse of the party system had created a vacuum that would be filled by representatives of regional or economic or cultural interests, all in search of a suitable candidate. For all these reasons, the election of 1824 was the most confused and wide-open national political contest America had ever seen.

A CAPITOL VIEW

Painted in 1824 by Charles Burton, this watercolor of the U.S. Capitol shows what the building looked like almost two centuries ago. The trees in the foreground were planted during Thomas Jefferson's administration.

METROPOLITAN MUSEUM/SCALA, FLORENCE

DECEMBER 1824

Andrew Jackson secures the most votes, but no candidate wins an outright majority. The House of Representatives will hold a vote with the top three candidates: Jackson, Adams, and Crawford.

JANUARY 1825

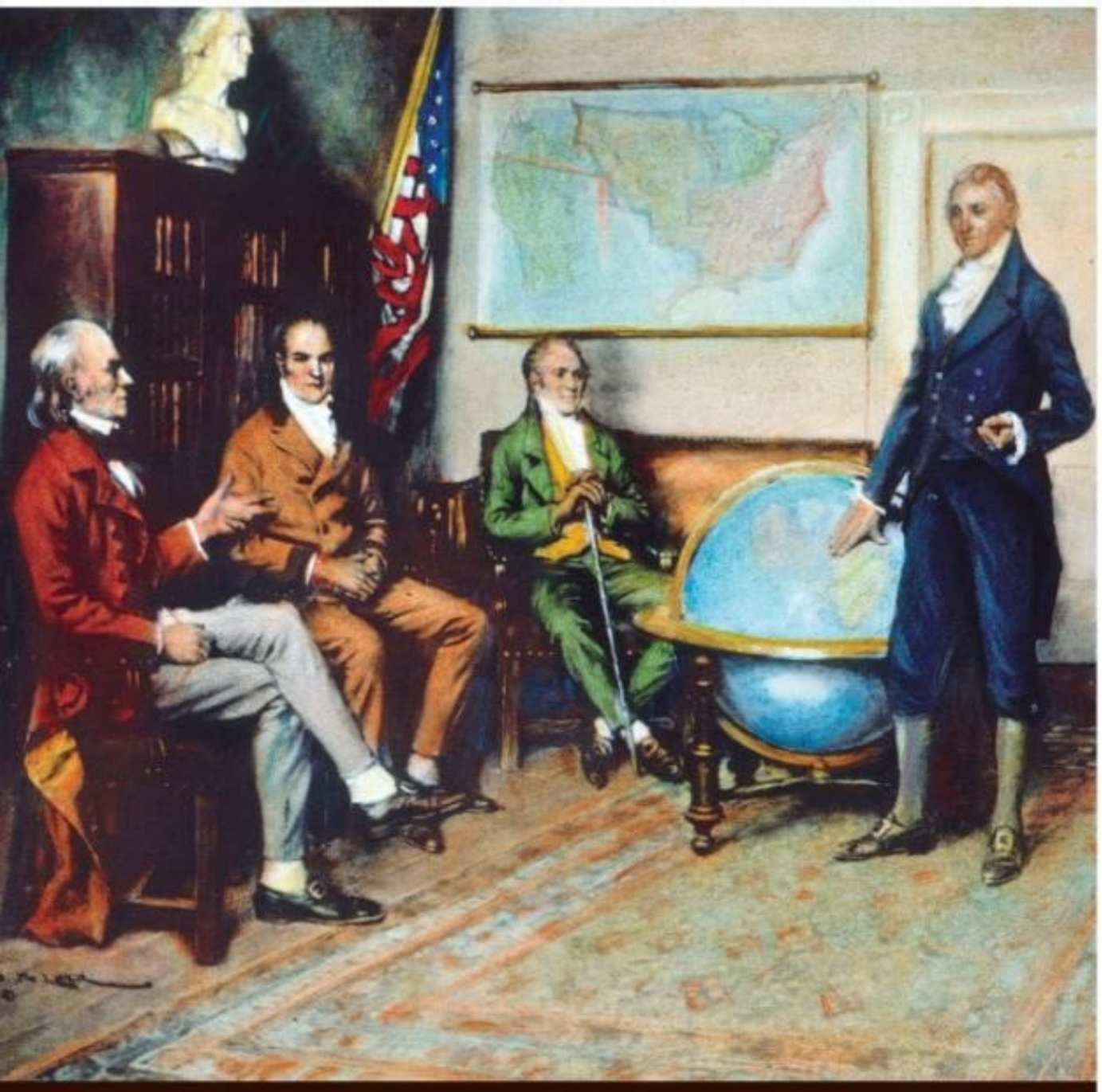
Adams may have given Clay assurance of his place in the new administration in exchange for his influence in the Kentucky vote in an unofficial deal that Jackson will dub the "corrupt bargain."

FEBRUARY 1825

The House elects Adams with 13 votes, Jackson gets 7, and Crawford takes 4. Jackson vows to unseat Adams in 1828, beginning an era of political rancor.

HENRY CLAY CAMPAIGN BUTTON, 1845

DON TROIANI/BRIDGEMAN/ACI

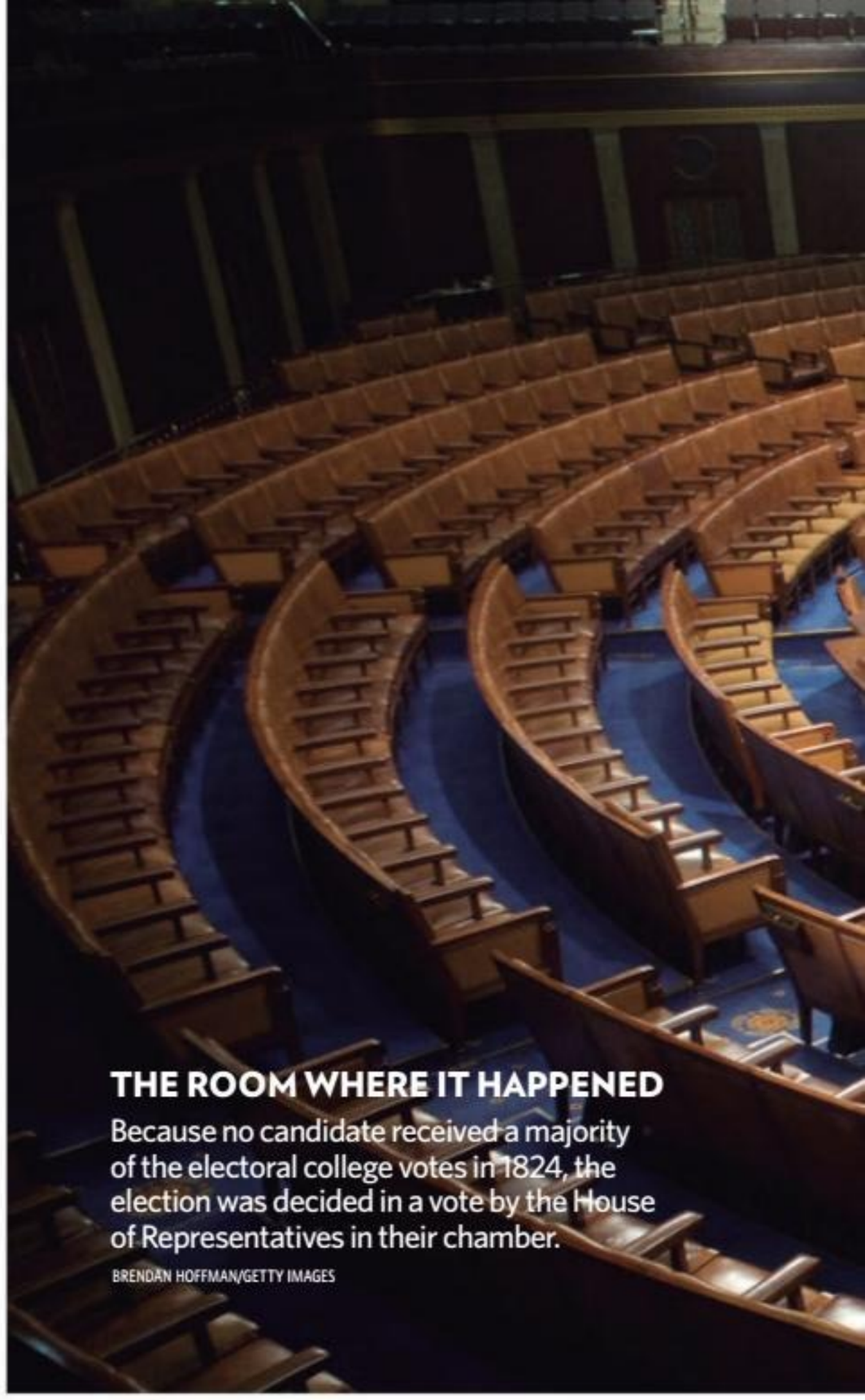


THE MONROE DOCTRINE, I PRESUME

HOLDING OFFICE from 1817 to 1825, James Monroe was the last Founding Father to serve as U.S. president. His résumé was impressive: a soldier in the Revolution, delegate at the Continental Congress, U.S. senator, governor of Virginia, and minister to France and Great Britain, but his most enduring accomplishment was the Monroe Doctrine, a cornerstone of U.S. foreign policy. In December 1823 Monroe announced the Monroe Doctrine, as it came to be known, in an annual address to Congress, which warned Europe that the United States would treat any external intervention in the politics of any independent nation in the Western Hemisphere as a hostile act. Future presidents, such as Theodore Roosevelt and John F. Kennedy, relied on this policy when European sabers began to rattle during their presidencies. Although Monroe's name is on the doctrine, many historians credit Monroe's secretary of state, John Quincy Adams, with the idea itself.

THE BIRTH OF THE MONROE DOCTRINE, REPLICATES THE PAINTING BY CLYDE O. DELAND. THIS DETAIL SHOWS JOHN QUINCY ADAMS (SEATED FAR LEFT) AND JAMES MONROE (STANDING).

GRANGER COLLECTION/CORDON PRESS



THE ROOM WHERE IT HAPPENED

Because no candidate received a majority of the electoral college votes in 1824, the election was decided in a vote by the House of Representatives in their chamber.

BRENDAN HOFFMAN/GETTY IMAGES

The Candidates

As of fall 1823, Secretary of State John Quincy Adams, Speaker of the House Henry Clay, Secretary of the Treasury William Crawford, and Senator Andrew Jackson were the front-runners, each from a different region of the country.

As a son of one of the Founding Fathers, a diplomat who had brought a successful conclusion to the War of 1812, a secretary of state who had negotiated treaties that had immensely expanded American territory, and a supremely seasoned figure with a firm grasp on every issue that faced the nation, John Quincy Adams should have enjoyed a powerful claim on the presidency. Yet his most important jobs were ones to which he had been appointed by a president. As a state and national legislator he had sought electoral positions, but he had not shown much of a gift for attracting voters. He had lost his very first contest, for state assemblyman, and had been recalled as a U.S. senator by a state legislature outraged at his stubborn independence. He did not like appealing to voters, did not believe he should have to, and was not good at it.

Andrew Jackson was the wild card of the race. People all over the country knew his legend: He had killed a man in a duel after being shot in the chest, fought alongside Davy Crockett to decimate a force of Red Stick warriors from the Creek tribe, won millions of acres for settlers in treaties imposed on Indian tribes, and annihilated the British force at New Orleans while losing only thirteen men. Newspapers wrote lavish profiles; supporters compared him to "the immortal Washington." Jackson was also the first candidate to "run against Washington." He had the military man's scorn for the pettiness and haggling of political life, to which he joined an unflagging faith in his own honor.

In the first months of 1824 the political odds favored William Crawford. Over the summer Crawford had suffered a debilitating stroke, but he was protected by the prohibition against public appearances by candidates. The Georgian was widely expected to carry the South, thanks in part to a tacit endorsement from Thomas Jefferson. However, when Crawford suffered another stroke, in May, Henry Clay wrote exultantly to a confidante that the Georgian would soon die. The stroke had left Crawford nearly blind and had so impaired his circulation that he walked around with thick layers of cloth wrapped around his freezing feet. But Crawford, a huge, robust man, would recover once again and stay in the race.

Clay was the one candidate who could be said to be "running" for president. He had a platform, and he gave long, impassioned speeches on his favorite topics. But he knew very well that policy, by itself, would not carry the day. He needed his friends to neutralize his rivals and influence prominent men. Adams, meanwhile, was, if not running, then at least unmistakably standing. His front door was spinning with friends, would-be friends, and friends of his rivals: At the end of March he recorded in his journal that he had received 235 visitors that month, or 8 a day, taking up at least four hours.

Adams increasingly found that he needed to offer reassurances not only about

PRESIDENTIAL PLATES

James Monroe's bold White House china service (below) features a red band with symbolic illustrations representing Strength, the Arts, Commerce, the Sciences, and Agriculture.

2000 WHITE HOUSE HISTORICAL ASSOCIATION

THE BILLS, THEY ARE A' CHANGING

THE U.S. TREASURY announced in 2015 a makeover for the $10 bill, but a resurgence in Alexander Hamilton's popularity scuttled that plan. In 2016 the Treasury decided to update the $20 bill instead: Freedom fighter Harriet Tubman will grace the front, and Jackson will move to the back. When chosen for the bill in 1928, many felt Jackson stood for the American ideal of the self-made man, but since then his stock has fallen, largely due to his forced removal of Native Americans from their lands, which resulted in thousands of deaths. Others felt that Jackson, who despised banks, would never have wanted to be on its currency. The new bill is set to debut in 2020.

ADIOS ANDREW! IN 2020 HARRIET TUBMAN WILL BE THE NEW FACE ON THE FRONT OF THE $20 BILL.

ALAMY/ACI

his views, which was second nature to him, but about his willingness to find a place for men whose support he needed, which violated his most deeply held principles. Adams was divided against himself, as men like Clay and Crawford were not. He played the game of politics because he wanted to be president far more than he could ever admit to himself. He wanted it, but he did not want to want it. Adams's parents had raised him both to expect great things for himself and to scorn the idea of ambition. His internal struggle was robbing him of the sense of self-mastery he always sought but rarely found.

By mid-October, the twenty-four states of the Union were poised to begin choosing a president. No one could confidently predict the winner.

The Results Roll In

When the first results began arriving in Washington, Andrew Jackson proved to be the only candidate with true national appeal. He won all of Pennsylvania's electoral votes, as well as those of New Jersey. And he surged as Clay faded in the West and Crawford in the South. Crawford won only in Georgia, Virginia, and Delaware. Clay carried only the three western states of Kentucky, Missouri, and Ohio. And Adams won nowhere outside New England, though he had picked up votes throughout the country.

In those states where citizens voted for president, Jackson had taken 153,544; Adams 108,740; Clay 47,136; Crawford 46,618. But it was the electoral votes that counted, and here the final tally read: Jackson 99, Adams 84, Crawford 41, Clay 37. The Constitution stipulated that, absent a majority, the House would choose the winner from among the three top finishers. Now only Jackson, Adams, and Crawford, a broken man, survived.

According to the Constitution, each state would have one vote, to be determined by a vote taken among the congressmen from that state. Balloting would continue until one man won thirteen or more of the twenty-four states. What this meant was that little Rhode Island mattered as much as giant New York. The House would convene for the vote on February 9, 1825.

Adams could have taken the position that the nation had spoken and thus withdrawn.

HIS NAME IN LIGHTS

Active campaigning for office came to dominate 19th-century politics. Andrew Jackson's supporters may have carried this tin campaign lantern (below) that spells out "Old Hickory for President."

DON TROIANI/BRIDGEMAN/ACI

Jackson's friends put it out that this would be the correct thing to do. There is no sign that this idea crossed Adams's mind. And in any case, he had admitted to himself that nothing could cool off the fire of his ambition. Already he had allowed himself to offer the kind of veiled reassurances that once would have struck him as low political bargaining; now Adams would shred the fine tissue of his conscience.

Striking a Bargain

Every congressman would have a hand in determining the next president. On December 9, a full week before the final results were in, Adams began fielding a flood of visitors from the Congress, both at home and in the office. And he did something he had not done before: He went around to the rooming houses where almost all members of Congress stayed during the session. And he listened, if noncommittally, to suggestions about potential appointments should he become president. He met with Robert P. Letcher, a Kentucky congressman who was close to Clay and shared lodgings with him.

On December 15, Edward Wyer, a former diplomat whom Adams used on sensitive missions and who was obviously in his confidence, came by to say that "he had it from good authority that Mr. Clay was much disposed to support me, if at the same time he could be useful to himself." Wyer returned the next day and repeated his story, refusing to disclose his source. On the seventeenth, Clay's friend paid another call.

Letcher explained that Kentuckians preferred Jackson to Adams, as Adams knew perfectly well. A faction of them were at odds with Clay himself; they were scarcely bound to one another by ties of loyalty. Clay wished to "stand with his friends"; his friends wished to stand with him. Then he got to the point: What were Adams's sentiments toward Clay? Letcher was obviously Wyer's source: He had reached out, friend to friend.

Adams understood that Letcher was telling him that if he could reassure Clay's friends that their man would have "a prominent share in the administration," they would be prepared to disregard the instructions they received from Kentucky, whose state legislature had voted

WINNING THE WHITE HOUSE

Andrew Jackson may have lost the election of 1824, but he rallied to win the presidency in 1828 and again in 1832. This bronze statue of Jackson (above) was erected in front of the White House in Lafayette Square in 1853.

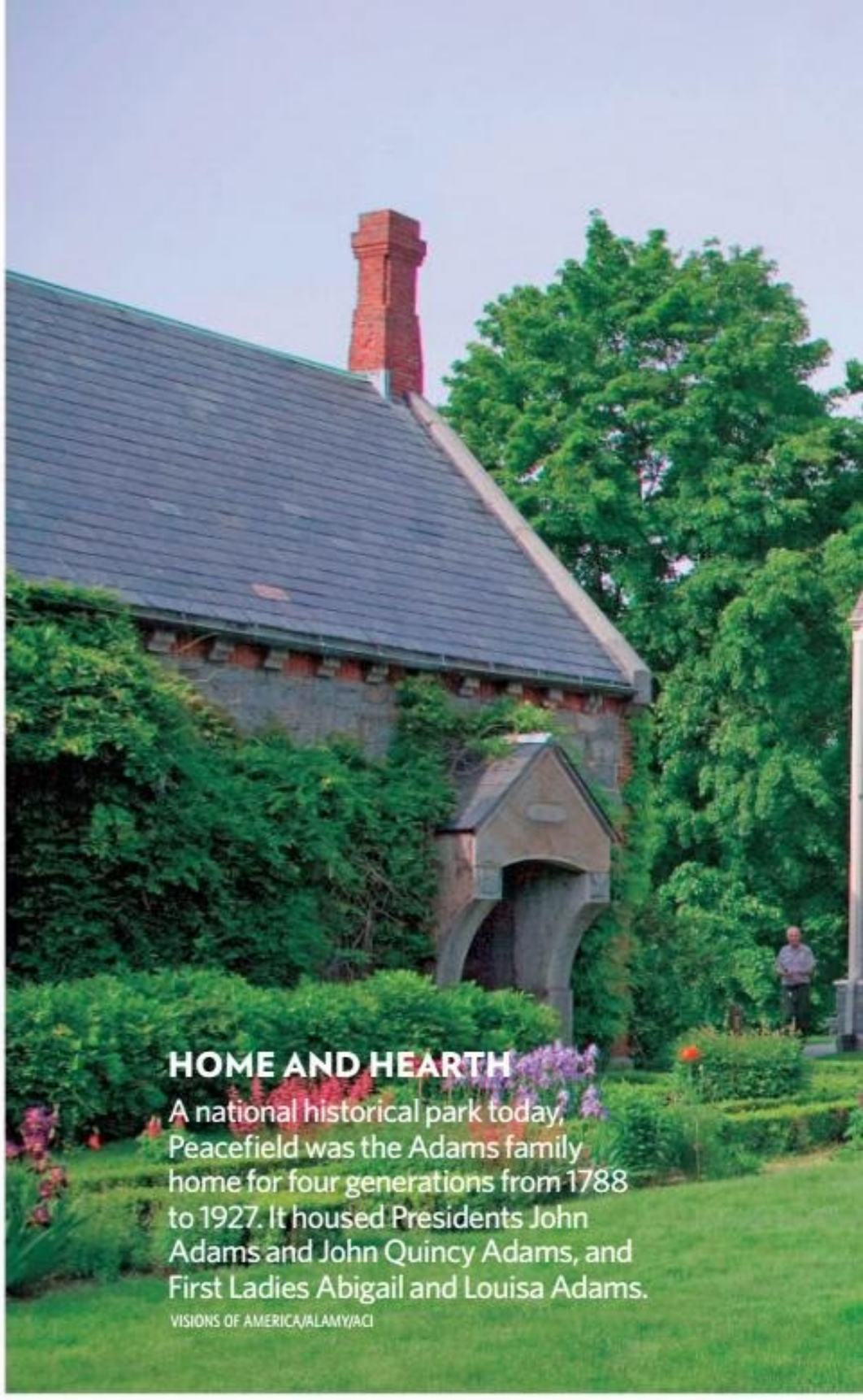
WIM WISKERKE/ALAMY/ACI

THE ADAMS FAMILY

THE ELDEST SON of Founding Father John Adams and his wife Abigail, John Quincy Adams belonged to one of America's first political dynasties. Between the 18th and 20th centuries, the Adams family would produce no less than two presidents, seven prominent politicians, two prestigious military careerists, 17 Harvard graduates, with many more engaged in education and transportation industries. Each generation seemed to groom the next for political life. John Quincy Adams's reputation as a master negotiator had its roots in his father's diplomatic missions to Europe during his childhood. John Quincy Adams's dedication to the abolitionist cause was expanded by his son Charles Francis Adams, who served in Abraham Lincoln's Cabinet. His son Henry Adams became a celebrated historian and Pulitzer Prize–winning journalist. The legacy of the Adams family may reside in their navigation through a variety of political platforms from Federalist to Republican while always maintaining a dedication to public service.

MOTHER AND SON. A STATUE OF ABIGAIL ADAMS WITH HER SON JOHN QUINCY ADAMS STANDS OUTSIDE THE ADAMS FAMILY'S CHURCH IN QUINCY, MASSACHUSETTS.

NORTH WIND PICTURES/AKG/ALBUM



HOME AND HEARTH A national historical park today, Peacefield was the Adams family home for four generations from 1788 to 1927. It housed Presidents John Adams and John Quincy Adams, and First Ladies Abigail and Louisa Adams.

VISIONS OF AMERICA/ALAMY/ACI

overwhelmingly to endorse Jackson. Letcher "made no definite propositions," and Adams himself responded "in general terms." Their work was begun but not concluded.

Clay, enjoying his new role, wrote a letter to a confidante describing how friends of each of the three remaining aspirants had beaten a path to his doorstep to proclaim that he, Henry Clay, had always been the candidate's second choice for the presidency and then implore him to throw his support to their man. The truth was, Clay went on, that Crawford was too sick for the job, and as between "the two evils" remaining, Jackson would "give the military spirit a stimulus and confidence which could lead to the most pernicious results," whereas Adams would leave America's institutions as he had found them.

Jackson did visit Clay's rooming house, as did Adams, and Clay, who had been out, returned the favor—but he never dispatched an emissary to Jackson as he had to Adams. So much venom had passed between Clay and Jackson that nothing could put things right between them. And strictly as a matter of calculation, a President Adams

might only last one term, while a President Jackson might prove impossible to dislodge. Clay would support Adams, but not without exacting a price.

On January 9, Clay paid a quiet visit to Adams at the latter's home. There he spoke of the advances he had spurned over the previous weeks. He observed, with splendid disingenuousness, that he had needed to reassure his friends that they should vote according to their own consciences. But the time had come for him to choose. As for the contest in the House, Adams recorded, "he had no hesitation in saying that his preference would be for me." Clay later wrote in a letter to an ally that, though Adams had made no promises, he concluded from the interview that he could have whatever job he wanted. That may well have been true.

Adams might have installed Clay in his Cabinet under any circumstances. He admired Clay's judgment, if not his personal morals. But Adams understood that reassuring Clay and his followers would put Kentucky in his column, and probably Ohio and Missouri as well. Adams had not received a single popular vote in Kentucky—not one. Jackson was immensely popular there, and the state plainly would have gone for him had Clay not been a favorite son. Adams would never have to know how Clay would exert his influence, but he would know that the consequence was that the will of the people would be overborne. That was a grave violation of his own republican principles. Adams would have said that no price was worth paying for the sacrifice of principle, but there is no sign that he believed at the time that he had done any such thing. He was thinking about the goal, not the means.

On January 24, the Kentucky congressional caucus announced for Adams. Clay had delivered his state. But Kentucky was hardly going to put Adams over the top. By January 28, news of the "corrupt bargain" between Adams and Clay had gone public. It was an astonishing last-minute bonus for Jackson, for the story reinforced the central theme of his campaign—that politics was a rotten business pursued by rotten men. The *Columbian Observer* of

ADAMS ARTIFACTS

This blue-and-white, porcelain salt-cellar (below) was obtained by John Quincy and Louisa Adams when they lived in Europe. Prior to his presidency, Adams served as the minister to the Netherlands, Russia, and Great Britain.

2000 WHITE HOUSE HISTORICAL ASSOCIATION

List of votes for President and Vice President of the United States, as counted in the presence of the two Houses of Congress, in the Chamber of the House of Representatives, on Wednesday, the 9th of February, 1825.

States.	For President.					For Vice President.							
	John Quincy Adams of Massachusetts.	John Quincy Adams of Massachusetts.	William H. Crawford of Georgia.	Henry Clay of Kentucky.		John C. Calhoun of South Carolina.	Nathan Sanford of New York.	Nathaniel Macon of North Carolina.	Andrew Jackson of Tennessee.	Martin Van Buren of New York.	Henry Clay of Kentucky.		
9. Maine,	.	9.	.	.	.	9.	.	.	.	.	.		
8. New Hampshire,	.	8.	.	.	.	7.	.	.	1.				
15. Massachusetts,	.	15.	.	.	.	15.							
4. Rhode Island,	.	4.	.	.	.	3.							
8. Connecticut,	.	8.	.	.	.	.	.	.	8.				
7. Vermont,	.	7.	.	.	.	7.	.	.	.				
36. New York,	1.	26.	5.	4.		29.	7.	.	.	.	.		
8. New Jersey,	8.	.	.	.	.	8.	.	.	.	.	.		
28. Pennsylvania,	28.	.	.	.	.	28.	.	.	.	.	.		
3. Delaware,	.	1.	2.	.	.	1.	.	.	.	.	2.		
11. Maryland,	7.	3.	1.	.	.	10.	.	.	1.	.	.		
24. Virginia,	.	.	24.	.	.	.	.	24.	.	.	.		
15. North Carolina,	15.	.	.	.	.	15.	.	.	.	.	.		
11. South Carolina,	11.	.	.	.	.	11.	.	.	.	.	.		
9. Georgia,	.	.	9.	.	.	.	.	.	.	9.	.		
14. Kentucky,	.	.	.	14.	.	7.	7.	.	.	.	.		
11. Tennessee,	11.	.	.	.	.	11.	.	.	.	.	.		
16. Ohio,	.	.	.	16.	.	.	16.	.	.	.	.		
5. Louisiana,	3.	2.	.	.	.	5.	.	.	.	.	.		
3. Mississippi,	3.	.	.	.	.	3.	.	.	.	.	.		
5. Indiana,	5.	.	.	.	.	5.	.	.	.	.	.		
3. Illinois,	2.	1.	.	.	.	3.	.	.	.	.	.		
5. Alabama,	5.	.	.	.	.	5.	.	.	.	.	.		
3. Missouri,	.	.	.	3.	.	.	.	.	3.				
261 Votes	Aggregate	99	84	41	37		182	30	24	13	9	2	—

Recap

THE HOUSE VOTE

Held in the United States National Archives, the tally sheet from the election of 1824 reveals the breakout of the votes that put John Quincy Adams in the White House and kept Andrew Jackson and William Crawford out of office.

SMITH COLLECTION/GETTY IMAGES

Philadelphia printed an anonymous letter claiming that Adams had offered to make Clay secretary of state in exchange for his influence—which was more or less true—and that Clay's friends had then made the same offer to friends of Jackson, who had refused to "descend to such mean barter and sale"—which was not true.

On January 29, the day after the story broke, Henry Clay, utterly unbowed, paid Adams another visit. The election was eleven days away; the outcome still impossible to predict. Now certain of his own position, Clay put aside his sidelong, insinuating manner. "He spoke to me with the utmost freedom of men and things," Adams wrote, "intimated doubts and prepossessions concerning individual friends of mine, to all which I listened with due consideration." Adams may have understood for the first time what an invaluable ally he had in Clay, who shared many of his views but was also a far more shrewd judge of men than he was.

The Final Count

In the days before the scheduled vote, political enthusiasts began pouring into the nation's capital. By the day of the vote, not a bed was to be had in the city's lodgings. It was a cold and snowy day, and the session would not begin until noon, but spectators began lining up outside the House doors early that morning.

When the electoral votes were formally unsealed, the results were announced: John Calhoun had been elected vice president, while Jackson, Adams, and Crawford would contest for the presidency. The senators now returned to their own chamber, while members of the House cast their votes. The results: "For John Quincy Adams of Massachusetts, thirteen votes; for Andrew Jackson of Tennessee, seven votes; for William H. Crawford of Georgia, four votes." Adams had won, with the support of Kentucky and other western states which may have been influenced by Clay's support. Upon learning the news, Adams uttered a prayer—"May the blessing of God rest upon the event of this day!" It was, he said in a note to his father, "the most important day of my life."

That night, President Monroe held one of his rare social evenings. All of Washington was there—Calhoun and Clay and Webster, and of course Adams and Jackson. People pressed through the dense throng to get a view of the winner and loser of this unprecedented, and increasingly ugly, contest. The crowd parted, and General Jackson, with a lady on his arm, approached the president-elect. Always the master of the situation, Jackson said graciously, "I give you my left hand, for the right, as you see, is devoted to the fair. I hope you are very well, Sir."

"Very well, Sir," said Adams stonily. "I hope General Jackson is well."

This courteous encounter would be one of the very last between the two men. It constituted the terminal point of the Era of Good Feelings—not so much because rancor supplanted a largely mythical period of consensus but because Jackson's embitterment propelled the rise of a new political party and thus new forms of political contest. From that moment forward, Jackson went into opposition; the 1828 campaign began before Adams even took office. Adams had finally won the prize he had long sought, but he had won it under circumstances that would turn the next four years of his life into a terrible struggle. ■

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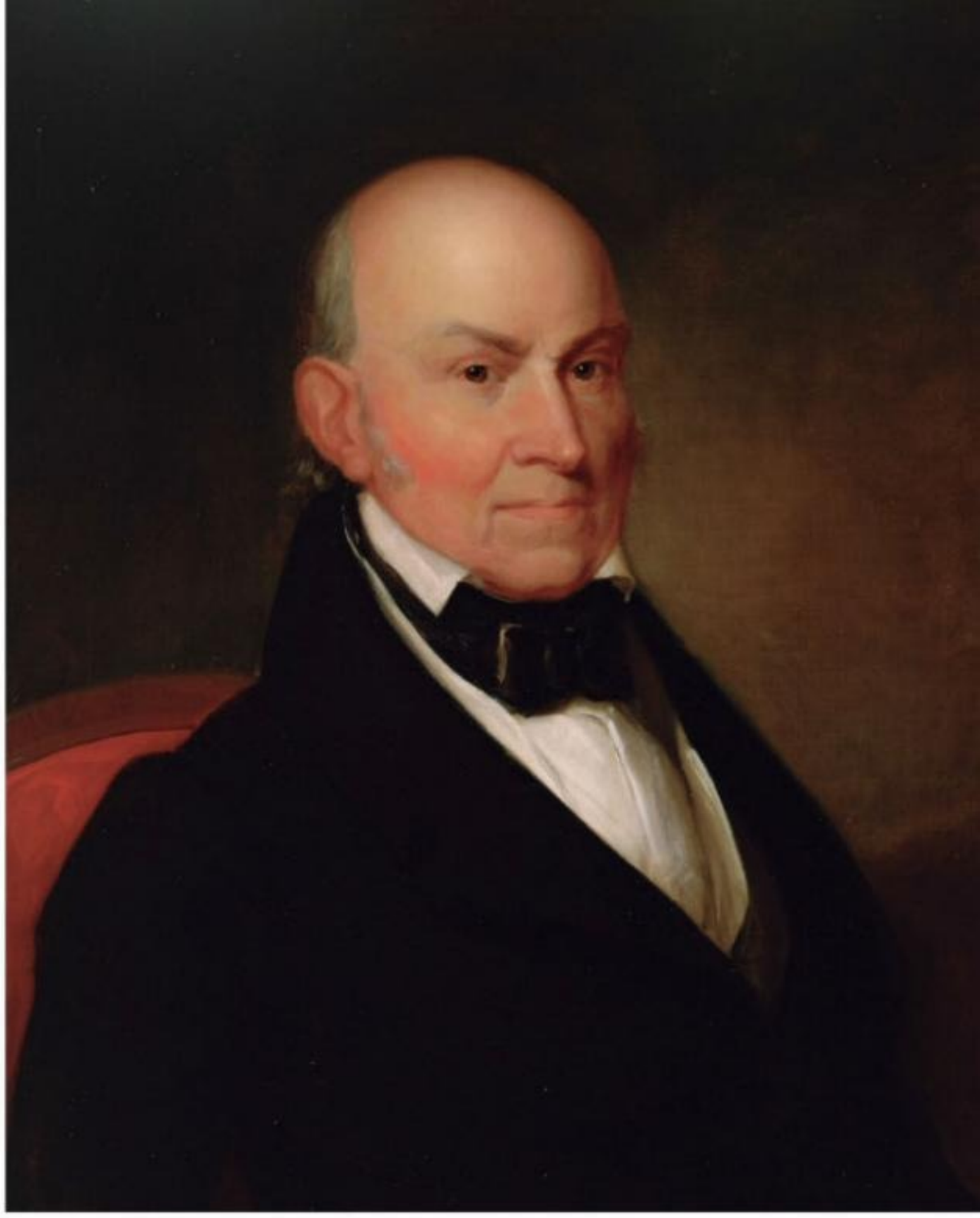

ONE-TERM WONDER

John Quincy Adams served a single term as president, but his political career continued after his defeat by Jackson in 1828. In 1830 Adams returned to Washington, D.C., serving in the House of Representatives.

NEW YORK HISTORICAL SOCIETY/BRIDGEMAN/ACI

AMERICAN POLITICAL CARTOONS:

Inspiring, praising, attacking, satirizing, or just poking fun: Political cartoons in America stretch back to the 18th century. America's first political cartoon, drawn by Ben Franklin, was published in the *Pennsylvania Gazette* on May 9, 1754, in the face of the French and Indian War.

Nineteenth-century cartoonist David Claypoole Johnston drew the first political cartoon centered on a presidential election. Dated October 6, 1824, "A Foot-Race" is a satirical look at the election, showing the candidates literally running against each other while a crowd of spectators makes wisecracks. Running neck and neck, ❶ John Quincy Adams, ❷ William Crawford, and ❸ Andrew Jackson occupy the foreground, while ❹ Henry Clay, who had fallen behind, stands off to the right with a hand on his

WORTH A THOUSAND WORDS

head lamenting, "D__n it I can't save my distance—so I may as well draw up." Onlookers, many politicians themselves, encourage their candidates. ❺ John Adams cheers on his son: "Hurra for our son Jack!" while a ❻ Jackson supporter calls out "Hurra for our Jack-son!" ❼ A large throne labeled the "Presidential Chair" sits in the background, next to a price tag, suggesting that the office was for sale.

"A Foot-Race" circulated between late October and early December, and its direct impact on voting is unknown. Historians use the cartoon to assess the political atmosphere of 1824, in which elections were seen as self-interested sporting contests rather than noble democratic exercises. It also foretells of the brewing sectionalism that will bring about the end of the Era of Good Feelings.

GRANGER COLLECTION/CORDON PRESS

Treasure Hunt: Search for the Bactrian Gold

A trove of glittering artifacts unearthed in Afghanistan in 1978 revealed the stunning cultural diversity of the Silk Road in the first century A.D. A decade later, as conflict engulfed Afghanistan, a top secret plan was launched to keep the treasure safely hidden from looters.

SARIANIDI/RIA NOVOSTI

Discovered against the turbulent backdrop of the Cold War, the Tillya Tepe treasure is a glittering assemblage consisting of thousands of golden pieces from all over the ancient world. In 1978, a year before the Soviet Union invaded Afghanistan, Russian archaeologist Viktor Ivanovich Sarianidi began digging at the Tillya Tepe site in northern Afghanistan, which archaeologists had recently identified as of potential historical interest.

Meaning "golden hill," Tillya Tepe is located in Bactria, an ancient region located in what is now part of Afghanistan, Uzbekistan, and Tajikistan. It is thought the hoard was buried by Scythian or Chinese nomads at the beginning of the Christian era. Sarianidi was an expert in the rich Bronze Age civilizations of Bactria, later occupied by Alexander the Great in the fourth century B.C. Later, as Rome rose in the west, Bactria was fought over by peoples from India, China, and Iran, each adding new cultural elements to the Hellenistic culture established in the region by Alexander.

Sarianidi knew that an area that had been conquered and reconquered by so many peoples was likely to be rich in artifacts from their many cultures. Yet even this experienced scholar was unprepared for the dazzling array of riches he unearthed, which came to be known as the Bactrian gold.

The Golden Hoard

The workers at the site uncovered six tombs, dating from the first century B.C. to the first century A.D. They contained more than 20,000 objects, including golden rings, coins, weapons, earrings, bracelets, necklaces, weapons, and crowns. In addition to gold, many of these were crafted from precious stones such as turquoise, carnelian, and lapis lazuli.

Scholars believe the graves were of six wealthy Asian nomads, five women and one man. The 2,000-year-old artifacts found with them exhibit a rare blend of aesthetic influences (from Persian to classical Greek) and the

GOLDEN FOLDING CROWN, TILLYA TEPE, FIRST CENTURY A.D. NATIONAL MUSEUM OF AFGHANISTAN
BRIDGEMAN/ACI

1978
Excavations begin at Tillya Tepe, led by Viktor Sarianidi. The artifacts found are later placed in Kabul's National Museum.

1979
The Soviet Union invades Afghanistan. An insurgency against the invasion leads to years of war and instability.

1988–89
After the Soviet withdrawal, Afghan society collapses. Authorities protect the hoard by hiding it away.

2003–04
Observed by National Geographic fellow Fredrik Hiebert, the hoard is recovered and returned to the National Museum.

THE EXCAVATION at Tillya Tepe in northern Afghanistan was carried out by the Soviet archaeologist Viktor Sarianidi in 1978.

great number of precious objects found surprised the archaeologists, in particular the intricate golden crown found in the sixth tomb.

The woman buried with the crown was found lying with her head pointing toward the west. The crown is exquisite, formed of cut-gold trees, each with tiny birds in the boughs, and bearing traits that Sarianidi identified as clearly belonging to a nomadic culture.

At the time of the burials, Bactria was on the Silk Road that linked China with the West, a region crisscrossed by traders carrying goods, ideas, and religions. Sarianidi himself believed that the treasure had been assembled by Yuezhi nobles from China, who arrived in the Bactria region around

GOLDEN GIRLS

OF THE SIX TOMBS DISCOVERED, five contained female skeletons covered in jewelry. Among the bones were found golden disks, earrings, and other decorative ornaments. Of particular interest was the nomad princess in the sixth grave. The golden crown pictured (opposite) was found in place on her head, its intricate design of thin, cut gold allowing it to be folded when not in use—the ultimate nomadic accessory.

SPUTNIK/ALBUM

The Wealth of Nations

THE THOUSANDS OF OBJECTS found at Tillya Tepe date from 2000 B.C. to the first century A.D. A huge variety of Bactrian, Greco-Roman, Scythian, Chinese, and Indian styles reveal how cultural and religious ideas spread along the trade routes between China and the Mediterranean world.

Golden Ram

Part of a nomadic headdress from the first century A.D., this ram was in the fourth tomb, the only grave belonging to a man.

Ornate Dagger

Dating to the first century A.D., the hilt and sheath are made of gold and turquoise. A dancing bear adorns the handle.

Ritual Pendant

This gold, turquoise, and lapis lazuli pendant from the first century A.D. depicts the Dragon Master, in Persian, Indian, and nomadic styles.

Asian Aphrodite

A figurine from the first century B.C. representing: the Greek goddess Aphrodite; a Bactrian divinity; and the Indian bindi, or "third eye"

PHOTOGRAPHS: RAM: RICHARD BARNES/NGS; DAGGER: SPUTNIK/ALBUM; EARRING: AP IMAGES/GTRES; APHRODITE: KENNETH GARRETT

the second century B.C., and who later established what is known as the Kushan Kingdom in India. Other scholars believe the hoard was interred by Scythians from modern-day Iran. The contesting theories reveal the variety of influences that make up this huge collection of objects. Other items include a Roman coin with the head of the emperor Tiberius, a silver mirror with Chinese engravings, rings with Greek text, and a coin with Buddhist imagery.

Safekeeping

In 1988 the president of Afghanistan, Mohammad Najibullah, made a fateful decision. After years of combat, exhausted Soviet troops were finally withdrawing from the country. Fearing Afghanistan was about to descend into chaos, Najibullah felt that the National Museum of Afghanistan was no longer safe for the Bactrian gold. A select team moved the treasure to a secure hiding place, its members swearing never to reveal its whereabouts until peace was restored. For more than a decade of war and chaos they kept their secret.

In 1993 the National Museum was hit by a missile, and nearly three-quarters of its treasures were looted during the ensuing years. Many Afghans assumed that the Tillya Tepe treasure had shared the same fate, and that this part of Afghanistan's national heritage had been sold off on the antiquities black market.

In 2003, however, following the overthrow of the Taliban regime, the new Afghan government revealed that the treasure was safe and had been hidden in a vault of the central bank. Carefully cataloged by the National Geographic Society, the treasure was moved back to the newly renovated museum—a rare happy ending for a country that had lost so many lives, and so much of its heritage.

—Alejandro Gallego

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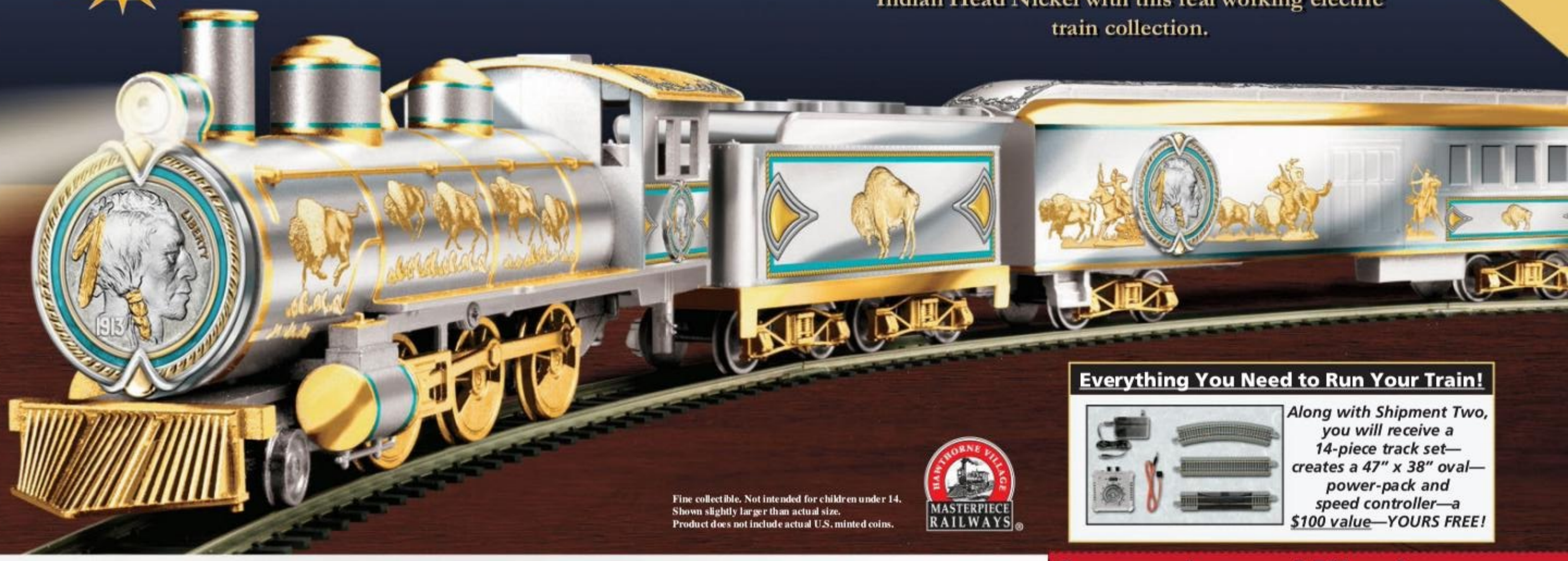

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Next Issue

WHO WAS THE REAL NAT TURNER?

FREEDOM FIGHTER or cold-blooded murderer, Nat Turner's true character remains elusive despite his role in the largest slave rebellion in U.S. history. As depicted in the 2016 film *The Birth of a Nation* (left), Turner and more than 40 enslaved African Americans rebelled in Virginia before being defeated by local militia. Ever since, historians have sought the real Nat Turner, whose many historical depictions reveal a nation's complex relationship with race, freedom, and slavery.

COLMAN DOMINGO AS "HARK," AND NATE PARKER AS "NAT TURNER" IN THE BIRTH OF A NATION. PHOTO COURTESY OF FOX SEARCHLIGHT PICTURES. © 2016 TWENTIETH CENTURY FOX FILM CORPORATION ALL RIGHTS RESERVED

THE BIGGEST OF THEM ALL: KHUFU'S GREAT PYRAMID

THE LARGEST EGYPTIAN pyramid was built 4,600 years ago on the Giza plateau as the tomb for the pharaoh Khufu. Contrary to popular myth, the structure's 2.3 million stone blocks were not laid by slaves, but by free laborers. Built over a period of 23 years, Khufu's tomb reflects the order and ingenuity of Egypt's remarkable architects, including the brilliant Hemiunu, depicted here in a sculpture found in his tomb in Giza.

DEA/ALBUM

The Mysteries of Babylon

Ruling Mesopotamia from the banks of the Euphrates, ancient Babylon has been capturing imaginations for centuries: from Cyrus the Great to modern-day archaeologists.

Thinking and Drinking

In ancient Greece's Golden Age, aristocratic men would gather for symposia, evenings filled with sumptuous feasts, divine wines, and philosophical conversation.

Allied Against Attila

In A.D. 451 Rome struck an alliance with former enemies the Visigoths and other barbarian tribes to turn back the fearsome Attila the Hun and his rampaging forces.

The Truth About Lucrezia

Derided as a schemer, murderer, and seductress, Lucrezia Borgia fought to claim her place in her political family and lead one of the most creative courts in Renaissance Italy.

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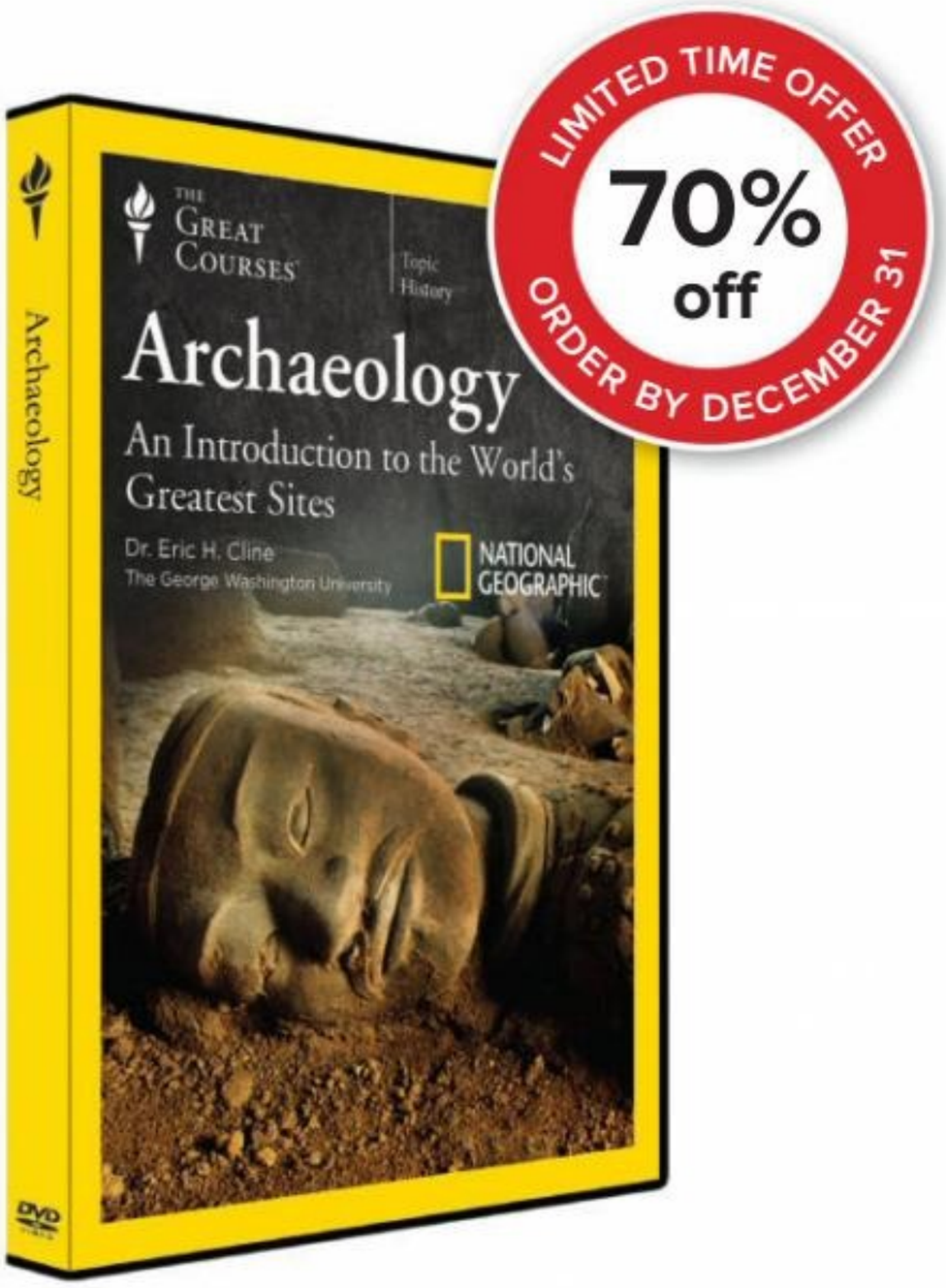

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